

STUDIES
IN
ANCIENT HINDU POLITY

(BASED ON THE ARTHAŚĀSTRA
OF KAUTILYA)

VOL. I.

BY
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WITH AN INTRODUCTORY ESSAY
ON THE AGE AND AUTHENTICITY OF THE ARTHAŚĀSTRA
OF KAUTILYA
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LONGMANS, GREEN AND CO.
39, PATERNOSTER ROW, LONDON, E.C.
NEW YORK, BOMBAY AND CALCUTTA

1914

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TO
MY FATHER
THE HON. RAJA RESHEE CASE LAW, C.I.E.
THIS SMALL TRIBUTE
OF
GREAT AFFECTION

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PREFACE

IN the present work an attempt is made to describe some of the features and activities of the civil government of the ancient Hindus, as outlined in the Arthaśāstra of Kauṭilya. Such an attempt will, I trust, be useful in throwing some light on the secular and practical achievements of the ancient Hindus, as distinguished from the spiritual and intellectual, which latter are more widely studied and appreciated than the former.

I am, however, painfully conscious of the difficulties with which the subject is beset. The quaint and terse language of Kauṭilya, combined with the technical terms used by him, adds much to the difficulties. The Commentary of Bhaṭṭasvāmī is fragmentary and confined only to a portion of the Second

Book. I should, however, acknowledge my indebtedness to the edition and translation of the work by Mr. R. Shama Sastri, B.A., whose pioneering work has paved the way for the investigations of other scholars.

My deep gratitude is due to Prof. Radhakumud Mookerji, M.A., Premchand Roychand Scholar and author of "A History of Indian Shipping," for valuable help rendered and for the Introduction he has written to this work. I am also thankful to Pundit Jogendranath Tarka-Vedânta-tîrtha and Pundit Vihdusekhar Sastri for their kind assistance, and to my uncle, Mr. Nanda Lal Dey, M.A., B.L., author of the "Geographical Dictionary of Ancient and Mediæval India," for his valuable suggestions. My acknowledgments are likewise due to Mr. Ramananda Chatterji, M.A., editor of the *Modern Review*, for his courteous permission to reproduce such portions of this work as appeared in his *Review*, and to Messrs. Surendra Nath Kumar, B.A., and Hiralal Roy, A.B., for their kind assistance; also to my brother Mr. Surendra Nath Law, and to Messrs. Kumud Lal Dey, Nalin Chandra Paul, B.L., Satya Churn Law,

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M.A., and Moni Mohun Sil, for the help I have received from them.

I am fully conscious of my own limitations and the difficulty of the task before me ; and I shall consider my labour amply rewarded if my inadequate performance secures for the subject a proper attention and treatment.

NARENDRA NATH LAW.

96, AMHERST STREET, CALCUTTA.

August, 1913.

AN INTRODUCTORY ESSAY ON THE
AGE AND AUTHENTICITY OF THE
ARTHAŚÂSTRA OF KAUṬILYA.

By PROF. RADHAKUMUD MOOKERJI, M.A.,
Premchand Roychand Scholar, Author of *A History of
Indian Shipping*, etc.

IN response to the request of Mr. Law, I have much pleasure in saying a few words on the probable age of the now famous work, the *Arthaśâstra* of Kauṭilya, the importance of which for the history of culture can hardly be overestimated. To students of Indian history in particular, an approximate determination of the period to which the *Arthaśâstra* relates itself is a most pressing problem demanding immediate solution, for on that will depend much of the reconstruction of early Indian history, as well as a true interpretation and appreciation of ancient Hindu culture. The *Arthaśâstra*, as will be amply evident from Mr. Law's *Studies*, is a unique record of the secular and practical activities and achievements of the Hindu genius as distinguished

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from the intellectual and spiritual, of which there is so much evidence in the extant Sanskrit and Pāli literature, and of which so much has been said and written ; and a proper study of this most interesting work is well calculated to remove one of the widespread and deep-rooted misconceptions about ancient Hindu civilization, which is supposed to have distinguished itself only in the sphere of thought, and to have miserably failed in that of action.

In the following pages an attempt will be made to summarize the arguments which may be advanced in support of the traditional and widely current view that the *Arthaśāstra* of Kauṭilya is the work of Chāṇakya, the Minister of Chandra Gupta, and therefore belongs to the fourth century B.C.

That Kauṭilya and Chāṇakya are names of the same person is well known to students of Sanskrit literature. In fact, Chāṇakya is known by several names,¹ which are thus

¹ Śaṅkarārya in his *Jayamangalāṭkā* on Kāmandaka refers to the names thus : “ विष्णुमित्रेति सांख्यारिकी संज्ञा, वाचकः कौटिल्य इति जन्मभूमि गोत्र निबन्धने.” Bāchaspati Miśra in his *तान्पर्य टीका* calls Bātsyāyana, the author of *Nyāya-*

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enumerated by Hemachandra in his *Abhidhā-nachintāmaṇi* :

वात्स्यायने मन्त्रनामः कुटिलस्यचक्रात्मकः ।

ब्रह्मिणः पश्चिच्छस्त्राग्नी विष्णुमुत्तोऽकुलस्य सः ।

Equally well known is the fact of Chāṇa-
kya's connexion with the Emperor Chandra
Gupta Maurya, with its political consequences.
Evidence of this may be derived from a variety
of sources. Thus the *Vishṇupurāna* narrates
in its prophetic style that "the Brāhmaṇa
Kauṭilya shall root out the nine Nandas, in-
augurating Chandra Gupta in the kingdom."¹
So also the *Bhāgavatapurāna* has the following:
"A Brāhmaṇa will destroy these nine Nandas,

bhāshya, by the name of Pakshilaswāmi. Thus he says:
"अथ भगवता अथपादेन निःशेषसहेतीश्राजे प्रचीनेषुत्पादिते
अ भगवता पश्चिच्छस्त्राग्निना किमपरमवशिष्यते यदर्थं वार्त्ति-
कारकः ।" The *Vārttika* is, of course, the well-known Com-
mentary on the *Nyāyabhāshya* by Udyotakara, who wrote
it in order to overcome the sophistical arguments and
mystifying logic of the Buddhists ["कुतार्त्तिकध्यान-निरा-
सहेतोः । करिष्यति तस्य मया निबन्धः ।"] headed by Diṅ-
nāga as explained by Bāchaspatī Miśra ["कुतार्त्तिकदिग्मान-
प्रसृतयः"]. This statement, by the way, places the age of the
Nyāyabhāshya also before that of Buddhist propaganda dating
from Asoka.

¹ XXIV, 6-7: "नवीनं तान् नन्दान् कौटिल्यो ब्राह्मणः समुद्-
रिष्यति ... कौटिल्य एव चन्द्रमुत्तं राज्येऽभिषेक्यति ।"

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who will inaugurate Chandra Gupta as king.”¹ There are also similar references in the *Matsya*, *Vāyu* and *Brahmānda* Purāṇas to Kauṭilya’s bestowal of the sovereignty on Chandra Gupta.² In his *Sthavirāvalīcharita*, or “Lives of Jaina Patriarchs,” Hemachandra gives an account of Chāṇakya which, though legendary, agrees with the Purāṇas in making him the extinguisher of Nanda supremacy and supporter of Chandra Gupta. In the *Nandisūtra*, again, which is a Jaina religious work in Prākṛit language, Chāṇakya is extolled for the signal success which he achieved as Finance Minister of Chandra Gupta. In the Jaina work *Rishi-maṇḍalaprakaraṇavṛitti* there is a reference to the alliance of Chāṇakya with Chandra Gupta, who seized the kingdom by slaying Nanda. Among the Buddhist works recording the same fact may be mentioned Buddhaghosha’s Commentary, *Samantapaśādikā*, on the *Vinaya Piṭaka*, as well as the *Mahāvansatīkā* of Mahā-

¹ II, i, 11-12: “नवनम्हान् द्विजः कश्चित् प्रपन्नानुद्धरिष्यति ... स एव चन्द्रगुप्तं वै द्विजो राज्येऽभिषेक्यति ।”

² “कौटिल्यः चन्द्रगुप्तं तु ततो राज्येऽभिषेक्यति” [*Matsya*] and “चन्द्रगुप्तं नृपं राज्ये कौटिल्यः स्थापयिष्यति” [*Vāyu* and *Brahmānda*].

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nāmasthavira. Kāmandaka [*Nītisāra*] also refers to the overthrow of the Nanda dynasty and the inauguration of Chandra Gupta in a very forcible passage.¹ The same fact, as is well known, has supplied the basis of the drama *Mudrārākshasa*. Finally, we may refer to the evidence of the *Arthasāstra* itself, as set forth in one of its concluding verses, where it is stated that the *Arthasāstra* is composed by “him who with angry determination rescued (the Brāhmaṇa’s) learning and (the Kshatriya’s) art, as also the mother-country, from the clutches of the Nanda kings.”²

¹ यस्याभिचार वज्रैश्च वज्रवलयं तेजसः ।
 पपात मूलतः श्रीमान् सुपर्वा नन्दपर्वतः ।
 रक्षाकी मन्त्रशक्त्या यः शक्त्या शक्तिधरोपमः ।
 आकाश्वार मृचन्द्राय चन्द्रमुखाय मेदिनीम् । [I, 4-5.]

[“Salutation unto one whose fire of energy was like the flash of lightning, and through whose magical powers, that resembled in potency and fury the thunderbolt itself, the widespread, prosperous, powerful, mountain-like dynasty of Nanda was overturned.”]

² येन शास्त्रं च शक्यं च नन्दराजमता च मुः ।
 अमर्षेद्योदुताव्याघ्रं तेन शास्त्रनिर्द्धतम् ।

The “rescue of learning” would be either a vain boast or would seem to favour the traditional Indian view, widely current among orthodox Hindu Pandits and scholars, that all the three works, viz. *Nyāyabhāṣya*, *Kāmasātra*, and *Arthasāstra*, which

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So much about the fact of the political association of Kauṭilya with the Emperor Chandra Gupta. We shall now consider the evidence proving that the fact of Kauṭilya's authorship of *Arthaśâstra* is well known in Sanskrit literature. The two principal sources of that evidence are (1) the *Nītisâra* of Kâmandaka and (2) the *Dasakumâracharita* of Daṇḍî, both of which accept the genuineness of the *Arthaśâstra* as the production of Chânakya. Kâmandaka, at the beginning of his *Nītisâra*, says: "Salutation unto the learned Vishṇu Gupta, who raised the ambrosia of political science out of the vast ocean of the *Arthaśâstra*. As this science is very much liked by kings, I shall make a brief but clear abridgment of the treatise of that learned scholar who was a

are acknowledged authorities in their respective subjects, had a common author, and that that author was Chânakya. Compare in this connexion the enumeration of Chânakya's names in *Abhîdhânachîntâmani* quoted above. The boast about "rescue of learning" is also supported by Kâmandaka, who refers to Chânakya's encyclopædic learning in such phrases as "यो बभूव भुवि विद्युतः," "वेदविद्वा वरः," "विद्यानां पारद्वयनः," etc. Another significant fact to be noted in this connexion is the identity of numerous passages in the three works named above, pointing to their common origin. The whole subject, however, deserves a critical investigation.

master of all branches of knowledge.”¹ It is hardly necessary for our present purpose to prove by quotations that with Kâmandaka the work of Kauṭilya was not a mere tradition but an actual masterpiece, which has been throughout his *Nītisâra* used as his original authority, even supplying many of his words and phrases. Nay, Kâmandaka has, it may be said, abridged by making omissions: the entire portions of the second, third, fourth and fourteenth Books of the *Arthaśâstra* find no place in the *Nītisâra*. Thus the work of Kâmandaka supplies very good evidence to show that the work of Kauṭilya was a reality. The second piece of evidence bearing on the point is furnished by the *Daśakumâracharita* of Daṇḍî. In the *Somadatta-utpattikathâ* [l. 1] there is a reference to both Kauṭilya and Kâmandaka as authorities on Nītisâstra,² while in the eighth chapter of Part II occurs the following remarkable reference to Kauṭilya³:

¹ इर्मनात् तस्य सदसो विद्यानां पारदत्तनः ।

राजविद्या प्रियतया संविज्ञपन्मनर्थवत् । [I, 7.]

² “कौटिल्य-कामन्दकीयादिगीतिपटलकौशलं . . .”

³ “... इयमिदानीं आचार्यविद्युग्नेन लीर्षार्थे षडभिः श्लोक-
सदसैः संविज्ञा . . .”

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“The science of Dandanti (Politics) has been of late abridged into 6000 slokas by Achâryya Vishṇu Gupta for the benefit of the Maurya.” The results of a study of that work, difficult as it is, requiring a knowledge of various other sciences, are ironically described by Vihârabhadra (to dissuade his king from its study) in a long passage which bristles with quotations from the *Arthasâstra*. Thus one of the results is stated to be that the reader will have to gravely decide what quantity of rice will be required to satisfy his appetite¹ [“**आत्मकुचेरपि हने तच्छुद्धैः दयस्त्रिः दयामोदनः सम्यसते**”]; what quantity of fuel will cook a certain quantity of rice² [“**दयत श्रीदनस्य पाकाय रतावत् दयनं पर्याप्तमिति मानोक्त्वा नपूर्यकं देवम् ।**”]. Next follows a sarcastic enumeration and criticism of the king’s daily duties according to Châṇakya, which closely follows that of the text before us. Thus the following expressions have been borrowed from the *Arthasâstra*³:

¹ Cf. *Arthasâstra*, Bk. II, ch. xv, where quantities of food are determined for the higher castes (आर्य), lower castes (अवार), for women, and also for children.

² Cf. *Arthasâstra*, Bk. II, ch. xix: “**आहपचविंशतिपक्षं तच्छुद्धप्रसवापनम् ।**”

³ See the chapter on राजप्रवृत्तिः of the first Book.

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“सायबयजातं चङ्गः प्रथमेऽष्टमे भागे त्रौतयम्” ; “द्वितीये अन्वोऽन्वं विवदमानानां प्रजानां चाक्रोशैः दृष्टमानकर्षैः कष्टं जीवति” ; “तृतीये ज्ञातुं भोग्गुच समते” ; “चतुर्थे चिरस्थ-प्रतिग्रहाय चक्षं प्रसारयद्येव उतिष्ठति” ; “पञ्चमे मन्त्रचिन्तया महात्ममायासं अनुभवति ... तिद्यः सन्धुय होषगुषो दुतचार-वाक्मानि ... उपजीवन्ति” ; “षष्ठे खैरविहारः मन्त्रो वा सेव्यः” ; “सप्तमे चतुरङ्गवसः प्रत्यवेच्य प्रयासः” ; “अष्टमे सेनापतिसहस्रं विक्रमचिन्ताक्षरः” ; “पुनः उपास्य एव सन्ध्यां प्रथमे रात्रिविभागे मूढं पुत्रपाः द्रष्टव्याः” ; “द्वितीये भोजनान्तरं त्रौतिय एव स्नाध्यायं चारहते” ; “तृतीये दूर्ध्वोपेव संविष्टः” ; “चतुर्थपञ्चमी मयीत” ; “पुनः षष्ठे शास्त्रचिन्ता काश्चिन्ता-रत्नः” ; “सप्तमे मन्त्रग्रहः दूतादि प्रेषणानि च” ; “अष्टमे पुरोहित्तादयः अभ्येत्य एनमाहुः” ।

Thus these borrowings of Daṇḍī from the *Arthaśāstra* are a further proof that the work had an actual existence, and that it was the production of Chāṇakya.

Among other Sanskrit works which also allude to the *Kauṭīliya Arthaśāstra* may be mentioned the *Nandishāstra*¹ of the Jainas, the *Pañchatantra*² and the *Nītivākyaṃṛita*³ of Somadeva. Lastly, we may refer to the evidence of numerous quotations from Kauṭīliya in Mallināth's Commentary on Kālidāsa's

¹ P. 891, Calcutta ed., quoted in *I. A.*, Jan., 1905, p. 6.

² Ch. i.

³ Edited in the Kāvya-mālā Series, Bombay.

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Raghuvansha and other works.¹ Even Kâlidâsa would appear sometimes to borrow phrases of Kauṭilya's book.²

We have now considered the available evidence proving (1) the political connexion of Kauṭilya with Emperor Chandra Gupta Maurya, and (2) the existence of the *Kauṭīliya Arthasâstra* as a literary work. It now remains to prove that that work is the production of an individual author and not of a

¹ *E.g.* Mallinâth on *Raghuvansha*, Sarga 17, sloka 49: "अथ कौटिल्यः—कार्याणां नियोग-विकल्प-समुच्चया भवन्ति अनेनोपायेन मान्येनेति नियोगः अनेन अन्येनवेति विकल्पः अनेन चेति समुच्चयः इति," which is taken from the *Arthasâstra*, Bk. IX, ch. vii, pr. 147. *Ibid.*, sloka 55: "अथ कौटिल्यः—शीघ्राः प्रकृतयो स्त्रीभं सुव्यायान्ति विरामताम् । विरक्ता यान्यनिचं वा नर्षारं ब्रून्ति वा खयम्," which corresponds to *Artha.*, Bk. VII, ch. v, pr. 108-110. *Ibid.*, sloka 56: "अथ कौटिल्यः—समव्यायोर्थां सम्धीत हीनेन विमृश्यात्," which corresponds to *Artha.*, Bk. VII, ch. ii, pr. 101-2. *Ibid.*, sloka 76: "सन्त्रप्रभावीत्साहस्रक्रिभिः परान् समुध्यात् इति कौटिल्यः," which corresponds to *Artha.*, Bk. VII, ch. xv, pr. 117-120. *Ibid.*, sloka 81: "दुर्वलो बलवत्सेवी बब्रुवाङ्कितनादिभिः । वर्तेत दण्डोपगतोभर्तार्यैवमवस्थितः इति कौटिल्यः," which corresponds to *Artha.*, *ibid.* *Ibid.*, Sarga 18, sloka 50: "अथ कौटिल्यः—अर्थावर्षो वर्षा अर्थानर्थौ नार्थाणां नयानयो दण्डनीत्या इति," which corresponds to *Artha.*, Bk. I, ch. i, pr. 1.

² Thus the phrase "अभिषन्द वसनेन" of *Kumdrasambhava*, VI, xxxvii, occurs in Bk. II, ch. 1; similarly, *Raghuvansha*, III, xxviii, uses phrases of *Kauṭilya*, I, v, 8.

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school, as is frequently the case with Indian treatises.

Fortunately, the above proposition has been argued at great length and in a quite convincing manner by the learned German orientalist Prof. Jacobi,¹ who successfully combats Hillebrandt's² view that Kauṭilya is not himself the sole author of the *Arthasāstra*. Hillebrandt based his view on the inference that the expressions "एति कौटिल्यः" and "नेति कौटिल्यः," occurring no less than seventy-two times in the text, show that it is not the work of an individual author named Kauṭilya but of a school. It is, however, forgotten that the use of the first person and the consequent assumption of prominence or self-assertiveness by an author who wants to refute opposite views is always repugnant to Indian feeling, and the other alternative of writing one's own name in that connexion is invariably followed as a piece of literary etiquette in India. Secondly, to say that a work is the production of a school would mean (i) that its alleged author was the founder of

¹ *Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften*, xxxviii, 1912, pp. 882-849.

² *Das Kauṭilyasāstra und Verwandtes*, Breslau, 1906.

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the school traced to him in which discussions lead to definite conclusions and the creation of a tradition which is handed down from teacher to students, and (ii) that the tradition so created is afterwards embodied in a book-form by later students. None of these assumptions would, however, apply to Kauṭilya, considering the historical position of the man who, according to unanimous tradition as explained above, played such an important part not only in the foundation of the Maurya empire, but also in its governance as its first Chancellor with his onerous State duties. As Prof. Jacobi well observes : “ One can hardly imagine that Bismarck after his day’s work should have held a conference with the professors of a college over politics and State administration, and it is hardly less improbable to assume that Kauṭilya, the Indian Bismarck, should like an ordinary Pandit surround himself with students, teach them the *Arthaśāstra*, and found a school.” The fact is, that the book begat the school, and not the school the book.

Nor do Kāmandaka’s references to Kauṭilya’s work prove it to be the production of a school, as may be easily assumed ; for Kāmandaka’s

mention of Vishṇu Gupta, *i.e.* Kauṭilya, as his *guru* cannot be interpreted in the literal sense of the term so as to point to the origin of the *Arthaśâstra* in a school. This is clear from the character of the *Nītisâra* as well as from its contents. It is professedly an abridgment [“संक्षिप्तं यत्नः”] of the comprehensive work traced to Kauṭilya, which, though its principal source, is not, however, its only source, and is not also blindly followed. Kâmandaka is not a one-sided follower of his master; he refers to the opinions of other राजविद्याविद्; besides the authority of Kauṭilya; and there are points of agreement¹ as well as difference² between the two. Besides, Kâmandaka presents only a small part of the *Arthaśâstra* and omits those very subjects which have a bearing on actual administration and which give so much value to Kauṭilya's work; for instance, such subjects as administration, control of trade and professions, justice, etc., as also universal maxims of government. The fact of the matter was that Kâmandaka was no practical statesman, but a Pandit fond of disputation and showing

¹ *E.g.* classification of knowledge.

² *E.g.* the theory of the Maṇḍala or political sphere.

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off political wisdom ; and the use that he has made of Kauṭilya's work only strengthens our conviction that the work is not scholastically delivered tradition but bears the stamp of an individual author and his times.

The same conviction is also borne in upon us by the contents of the *Arthaśâstra* itself and its internal evidence, which we shall now proceed to set forth after Prof. Jacobi.

The first piece of internal evidence is furnished by the references of Kauṭilya to his predecessors, which betray the critical tendency unmistakably suggestive of an individual author. Thus Kauṭilya mentions his predecessors no less than 114 times—"एतन् कौटिल्य दत्तं" occurring only once¹—and in all those numerous references Kauṭilya quotes opinions only to differ from them. This abundance of criticism, opposition and contradiction seems evidently to indicate a strongly marked individuality and a critical personality, and is quite in keeping with the spirit of the concluding verse referred to above about the author's justly claimed services to learning. Further, if Kauṭilya's work were the production of a

¹ I, x, 6, p. 17.

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compiler of his school long after Kauṭilya's death, would there be any interest in the use of such forms as रति कौटिल्यः and जेति कौटिल्यः, and repeatedly establishing that Kauṭilya's doctrines differed from those of his predecessors? And, in that case, would also the expression "रति चाचार्यः," as applied to opponents, be used by a late student of Kauṭilya's school when it would also apply to Kauṭilya himself as an चाचार्यः?

Secondly, we should note the fact that the two greater parts of the *Arthasâstra* contain no mention of opposite views, viz. pages 69-156 and 197-253 of the book, comprising parts of Books entitled अथअप्रचार, कथकमीघन, and योगरत्नं, the last chapter of which treats of the significant subject "What is to happen in cases of imminent vacancy of throne?" Those parts do not treat the general principles so much as practical regulations in detail, such as administration, control of trade and industry, the police, the budget, and the like, about which scholasticism has no need to trouble itself but which are of the greatest moment to the practical statesman. We accordingly find that in his treatment of those subjects Kauṭilya does not take

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any opportunity for controversy, and stands there all alone with no previous tradition to consider or criticize. This is also evident from the significance of the word “प्रायज्ञः”¹ in the opening line of the book which refers to the previous *Āchāryyas*.

Next, we have to consider how Kauṭilya alludes to his predecessors. He uses both the plural and the singular number in respect of them, and in the former case he means the *school*,² and in the latter the *individual author*.³ What is worthy of note is that these sources are mentioned in a definite order⁴ in several places, which is probably not the chronological order, but rather seems to be the order of merit determined by Kauṭilya's own estimation, or the order determined by his convenience of discussion. The arranging of the *Āchāryyas* in such an arbitrary order is

¹ “इथिष्ठा ज्ञाने पाजने च यावन्ति अर्थशास्त्रानि पूर्वाचार्यैः प्रस्थापितानि प्रायज्ञानि संहृत्य एकमिदमर्थशास्त्रं कृतम्।”

² *E.g.* मानवाः, बार्हस्पत्याः, श्रीमनसाः, पाराशराः, etc.

³ *E.g.* भरद्वाजः, विशालाक्षः, पिशुनः, कौशपदन्तः, वात-व्याधिः, बह्दन्तीपुत्रः, etc.

⁴ *E.g.* I, vi, 4, pp. 18 ff.—भरद्वाज-विशालाक्ष-पाराशर-पिशुन-कौशपदन्त-वातव्याधि-बह्दन्तीपुत्र । The same order is seen on pp. 82 ff., and on pp. 825 ff.

possible only to a great master, and not to an ordinary writer of a text-book. It may also be noted in passing that the schools mentioned by Kauṭilya were not exclusively the schools of अर्थशास्त्र only, but of धर्मशास्त्र, which comprehended political discussion as a subsidiary topic. It seems that the धर्मशास्त्र did not differentiate itself as an independent school or branch of learning before Kauṭilya.

Fourthly, a careful consideration of the style of the *Arthasâstra* would also indicate its individual authorship. Broadly speaking, the course of literary development in India embraces three well-marked stages: in the *first* stage the previously accumulated tradition or discipline undergoes development in and through a school or schools devoted thereto; the *second* stage is that of the composition of *Sûtras*, which lead to some *siddhântas*, or definite formulæ and conclusions, the exposition of which is conducted by the school, though the contents receive thereby a further expansion; the *third* stage is that of the composition of *Bhâshyas*, which lead to freedom from the control of the schools, and ushers in the stage of individual authorship. Thus,

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while the text-books produced by schools (*e.g.* the *Śrauta-Dharma-Grihya-Sūtras*) show the style of *Sūtras*, the works of individual authors (*e.g.* Yāska's *Nirukta*, Patañjali's *Mahābhāshya*, etc.) bear a different character. They contain dogmatic statements, together with discussion supporting their own views, and the style passes from that of the *Sūtras* to the style of the *Bhāshyas*. Similarly, in Kauṭilya's work there are some parts characterized by the brevity and dogmatism of the *Sūtras*, while there are other parts in which the author indulges in certain breadth and minuteness of details after the manner of the *Bhāshyas*. Thus the *Arthasāstra* partakes of the character of both *Sūtra* and *Bhāshya* at the same time, and this is also admitted by the couplet added at the end of the book, viz. :—

इदं विप्रतिपत्तिं ब्रह्मा शास्त्रेषु माधकारात् ।
हयनेव विष्णुमुत्तमकारं रूपस्य माधय ॥

Hence the style of the work shows that it belongs to the class of literary works which are not the productions of schools but of individual authors.

We shall now discuss the evidence as to

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individual authorship furnished by passages in the book itself. These passages are given below :—

- (1) सुखपरहविज्ञेयं तत्कार्यपद्मिचितम् ।
कौटिल्येन कृतं शास्त्रं विमुक्तःपन्थविस्तरम् । [I, i.]
- (2) सर्वशास्त्रानुक्रम्य प्रयोगमुपलभ्य च ।
कौटिल्येन नरेन्द्रार्थे शासनस्य विधिःकृतः । [II, x.]
- (3) एवं शास्त्रमिदं युक्तं रतामिसन्मयुक्तिभिः ।
अवाप्नो पालने चोक्तं लोकस्यास्य परस्य च । [XV, i.]
- (4) अर्थानर्थं च कामं च प्रवर्तयति पाति च ।
अधर्मानर्थविद्वेषानिदं शास्त्रं निवृत्ति च । [Ibid.]
- (5) येन शास्त्रं च शस्त्रं च नन्दराजमता च भूः ।
अनर्थेहोदृताभ्याम् तेन शास्त्रमिदं कृतम् । [Ibid.]

The suggestion that all these passages might have been later additions to the text cannot stand, because, as pointed out by Prof. Jacobi, “if they are taken out, then the customary metrical conclusion will be wanting in the chapters concerned.” They may therefore be taken to be integral parts of the text.

In the first passage the expression “सुखपरहविज्ञेयं,” as pointed out by Prof. Jacobi, is a clear indication of individual authorship, for “so speaks the author of a text-book meant

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for self-instruction," for individual learners, and not for the school, for a *Sūtra* need not be सुव्यवहृदविज्ञेय, because for its understanding the teacher has to look to the school. This inference is also in keeping with the meaning of the opening words of our text, viz. "इदित्था ज्ञाने प्राप्तये च यावन्मयर्षभासादि पूर्वोक्तार्थैः प्रस्थापितानि प्रायश्चित्तानि संवृत्तैकमिदमर्षभासं कृतम् ।" Here there is a reference to individual authors, the earlier masters, and not to school traditions or schools, as must have been the case had the work of Kauṭilya been the product of a school.

The same contention is again supported by the second passage, which refers to practical administration and regulations [शासनविचार] which are above scholastic wisdom. Here Kauṭilya claims special merit for his work, for these matters had not been sufficiently handled by previous masters. The personal note of the passage is also unmistakable, for would a mere "school compiler" have thus boasted of laying down regulations for guidance of emperors ?

Of the next three passages, the first passage relates itself to the opening words of the text, the second promises the attainment of चिदम् as

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the end of the *Arthasâstra*, while the last verse indicates who the author is, not by mentioning his name, which had already appeared twice, but by enumerating his virtues or achievements with incomparably forcible brevity. This is not the language of vain self-glorification, but of one who speaks self-possessed from the height of human fame. But, as Prof. Jacobi well observes, in spite of the self-consciousness undiluted by any sham modesty, one still perceives in the words of Chandra Gupta's Chancellor a courtly discretion which omits to mention the name of his master whom he had raised to the throne, for in that connexion it would have been supremely indecorous. This graceful self-restraint, this aristocratic reserve, is very significant and well worthy of the man and his position in life. It is only a later author, untrammelled by such discretion or restraint, who can unreservedly mention the name of Emperor Chandra Gupta in connexion with the eulogy of Kauṭilya as Kâmandaka, for instance, has done in the passage quoted above.¹ Lastly, the full significance of the phrase “अनर्थे च उद्वृत्तं” has to be noted.

¹ See p. xiii above.

When applied to learning, it shows Kauṭilya's impatience of the narrowness and shallowness of his predecessors, which irritated him into activity, and is also an expression of the contempt of the Statesman for the Professor—of which Bismarck, for instance, made no concealment—a contempt which manifests itself throughout the book in the frequent references to the *Āchâryyas* and their doctrinairisms and the refutation of their teachings, and also in the necessity he felt for treatment of important topics omitted by previous masters but indispensable in a useful hand-book of Politics.

We have now considered the internal evidence of the book itself, which proves its genuineness as the production of Kauṭilya. The suspicion which has gathered round the work is due to the fact that literary forgeries have been very common in India, and individual authorship very rare. It is, however, forgotten that these forgeries invariably connect themselves with divine names, with gods and *rishis*, or the *gurus*, e.g. books which passed under the names of Manu, Yâjñavalkya, Vyâsa and the like. But a literary adulteration in respect of a historical personality supported by

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careful correspondence to the special features of the original (like the *Letters of Phalaris*, for example) is a refined imposture unheard of in India, and totally foreign to her soil. There is also another kind of literary practice in India which involves false naming of authors, and is frequently resorted to in cases where the author does not like to mention his own name but mentions instead that of his patron who brought about the composition of the work, *e.g.* the works going under the name of Bhoja, King of Dhârâ. Such a genesis, however, cannot apply to the work of Kauṭilya, wherein the author attributes to himself the merits of the work. It can, of course, hardly be denied that Kauṭilya must have had co-workers in many parts of his book, especially those which treat of technical details. Public officers of State in charge of the several departments of administration must have supplied to him materials which Kauṭilya has only edited; but this fact of itself does not vitiate the genuineness of the book as the production of Kauṭilya.

The universal reverence attaching to epoch-making masterpieces preserves them against

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the ravages of time and interpolators alike. They never get antiquated, but they become canonical. So has been preserved through centuries Yâska's *Nirukta* as well as Patañjali's *Mahâbhâshya*. This is also true of the *Kauṭīliya Arthasâstra*, which has further preserved itself by the numbering of its अक्षर's and the sketching of its contents. Thus the suspicion against the genuineness of the work is unfounded, while the unanimous Indian tradition according to which the *Arthasâstra* is the work of the famous Minister of Chandra Gupta is confirmed most decisively, as we have already seen, by a series of internal reasons furnished by the book itself.

In this connexion I should like to draw pointed attention to a few other passages in the text which, to my mind, contain indirect allusions and veiled references to the Emperor Chandra Gupta in respect of whom the *Arthasâstra* has carefully avoided any *direct* reference for reasons already explained, and which will no doubt be found to supply additional and valuable links in the chain of reasoning by which we are supporting our thesis that the book is a genuine production of the Minister

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of Chandra Gupta. These passages are as follows :—

- (1) अपधीतो हि [दृष्टः] मातृसन्ध्यावमुद्भावयति । वक्षी-
यानवक्षं हि पश्यते दृष्टवराभावे । तेन दुःप्रभवति ।
[I, iv, 1.]
- (2) विश्वाविनीतो राजा हि प्रजायां विनये रतः ।
अनन्यां प्रथिवीं मुकुंते सर्वभूतहिते रतः । [I, v, 2.]
- (3) तद्विषयवृत्तिरवशेन्द्रियशान्तरत्नोऽपि राजा सद्यो वि-
नश्यति । [I, v, 3.]
- (4) हेमः प्रथिवी ; तस्यां हिमवत्समुद्रानगरमुद्दीचीनं
सोज्जनसहस्रपरिमाणं अतिर्यक् सक्रवर्षिषेवम् ।
[I, ix, 135-6.]

The first of these passages easily lends itself to the interpretation that Kauṭilya seeks to justify his action in connexion with the usurpation of the throne by Chandra Gupta, whose strong and righteous administration [सचापदृष्टः and सुविज्ञान प्रधीतो दृष्टः] abolished the anarchy and misrule due to the profligacy and unpopularity of the previous Nanda king, who was unable to discharge the primary functions of government, viz. the protection of the weak against the strong [अप्रधीतो हि मातृसन्ध्यावमुद्भावयति, etc.]; “तेन दुःप्रभवति” would thus mean “for this reason—the abolition of anarchy and

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inauguration of order—does नृप, i.e. Chandra Gupta,¹ rise and flourish.” This is in all probability the hidden meaning of the passage, though its obvious and superficial sense, drawn from the grammar and context, is different from that suggested. The other three passages have also, to my mind, a common veiled reference to the paramount sovereignty established over the whole of India from the Himalayas to the sea [चिन्मवत्-समुद्राकारं, etc.], up to its boundaries in the four directions [चातुरकोऽपि राजा], by Chandra Gupta, who reigns as the Lord Paramount, *Chakravartî*, with none to dispute his rights or share the empire with him [अनन्ता इतिर्वा नृपते ।]. Thus, though there are no direct allusions in the *Arthaśāstra* to the sovereignty of Chandra Gupta which might connect it with his times, these indirect and veiled references are, in my opinion, a sufficient compensation for that supposed defect, and they well suit the work of a consummate politician like Chāṇakya, who knew very well what to express and what to suppress in writing about contemporary politics.

¹ I owe this suggestion to Mr. K. P. Jayaswal, M.A. (Oxon), Bar.-at-law. I am also deeply indebted to Dr. Brajendranath Seal, M.A., Ph.D., for his many invaluable criticisms and suggestions, and to Mr. Law for material assistance.

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And read between the lines, the *Arthasâstra* will be found to throw out sure and sufficient hints as to the age of its production.

Before I conclude, I should not pass over one other matter of importance in this connexion, viz. the striking correspondence between parts or passages of the *Arthasâstra* and the accounts of India traced to Megasthenes relating to the period of Chandra Gupta. Such correspondence of the *Arthasâstra* with a definitely dated document is no doubt of great help in fixing its age. A close study of both will show that the Book of *Arthasâstra* entitled अथर्वशास्त्र gives a full view of Indian administration of which only a partial view can be obtained from the observations of Megasthenes [Frag. xxxiv]. This may be indicated as follows :—

1. “*Of the great officers of State, some have charge of the market, others of the city, others of the soldiers.*” This corresponds to the अर्थशास्त्र of the *Arthasâstra*, under whom were such officers as बन्धुपति, मन्त्रपति and the like, who looked after commercial matters, the नगरपालिका or city magistrate charged with the municipal administration and policing of the city, and

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lastly such officers as नावध्वज, पत्तध्वज, सेनापति, etc., who were in charge of the military.

2. “*Some superintend the rivers, measure the land . . . and inspect the sluices by which water is let out from the main canals into their branches.*” Kautilya also mentions provisions for irrigation under the Superintendent of the Admiralty [नावध्वज] for inspection of rivers and water-courses. He also refers to canals and sluices, as in the passage “*सेतुश्लोमुच्चतलोयमपारेषट्पटोद्भन्.*” etc. [Bk. III, ch. x, 61], and mentions four modes of irrigation, viz. irrigation by hand [हस्तप्रावर्तिन], by water carried on shoulders [काम्प्रप्रावर्तिन], by mechanical contrivances [वीन-चक्रप्रावर्तिन], and by water from tanks, wells and rivers [नदीसरसुटाकडूपोद्गाढन्]. In the following passage, “*वातप्रदूर्तिमन्विन्निवन्वायतनतटाककेदाराराम-पञ्चवापाना . . .*” there is perhaps a reference to the raising of water from wells and tanks by bullocks, and also to devices worked by wind-power, i.e. windmills.

As regards officers who “measure the land,” a reference may be made to duties of officers called गोप, ज्ञानिक, etc., in the *Arthasāstra*, who were entrusted with the very same duties [Bk. II, xxxv, 54-55].

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3. "*The same persons have also charge of the huntsmen . . .*" In the *Arthasâstra* hunters were placed under the immediate control of an officer called विबीजायच, the Superintendent of Pastures, whose duties are set forth in detail [Bk. II, xxiii, 52-53].

4. "*They collect the taxes and superintend the occupations . . .*" In the *Arthasâstra* there is a detailed account of the arrangements for the collection of taxes or revenue. The chief responsible officer was the चनाचर्मी, under whom were the heads of several departments who collected the revenue for which they were responsible and sent it on to the चनाचर्मी [II, vi, 24].

5. "*They construct roads . . .*" This was done under the superintendence of the चनाचर्मी [*ibid.*].

6. "*The members of the first body look after everything relating to the industrial arts.*" The *Arthasâstra* also [IV, i, 76] speaks of the State supervision of industries, so as to secure proper observance by artizans of rules governing the preparation or manufacture of products [IV, i, 76].

7. "*The third body consists of those who inquire when and how births and deaths occur,*

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with the view not only of levying a tax, but also in order that births and deaths . . . may not escape the cognizance of Government." The *Arthasâstra* also gives details of census operations carried on by officers termed *ज्ञानिक, मोच, etc.* [see II, xxxiv, 54-55, and xxxvi, 56].

8. "*The fourth class superintends trade and commerce. Its members have charge of weights and measures, and see that the products in their season are sold by public notice.*" The officer termed *वज्राक्षय* in the *Arthasâstra* had also to detect false weights, measures and balances, and check the sale of adulterated goods and of inferior goods passed as superior [see chapter on *वेदेवकवचवद*]. He also regulated sales.

Similarly, Megasthenes' account of the organization of the War Office, with its six divisions, corresponds very well with what Kautilya says about the officers termed *नायक, अनायक, हस्त्यक्षय, रथाक्षय, सेनापति, etc.* His account of "the seven castes among the Indians," also, will be found on a closer analysis to correspond to the duties of the four traditional castes as laid down in the *Arthasâstra* [see p. 7, I, i, 1]. Among other minor correspondences may be mentioned Megasthenes'

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reference to elephants *turning the scale of victory*, which is to be compared with Kauṭilya's वृद्धिप्रधानो विजयो राज्ञाम् [II, ii, 20]; his reference to “exercising the body by friction” is supported by the duties of the संवाहक, as mentioned in the chapter on वाह्यरक्षितकम् [Bk. I]; that about “the care of the king's person being entrusted to women” is supported by the chapters on वाह्यरक्षितकम् [Bk. I] and नखिकाशयश्च [Bk. II]. His observation that “the king may not sleep during the day-time” is supported by the account of the king's daily duties in chapter राजप्रवृत्तिः [Bk. I]; that about “the guard of armed women” by Chanakya's जीमद्वैः चण्डिमिः of chapter वाह्यरक्षितकम् [Bk. I]; that about “enclosures” for the king's hunting may be compared with मृगवनं विहारार्थं राज्ञः कारयेत् as referred to in the chapter भूमिच्छिद्रविधानं [Bk. II]. The reference about the king's processions being very well guarded finds its parallel in what Kauṭilya says about them towards the end of the chapter on वाह्यरक्षितकम्.¹ Women attendants of the king, on chariots, as mentioned by Megasthenes, are also mentioned by Kauṭilya in his chapter on

¹ “निर्वाहोऽभियाने च राजमार्गमुभयतः सतारश्च दक्षिणिर-
पास्यत्तद्वत्प्रवृत्तितवङ्गंश्चेत् . . .”

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अविभाज्यः [Bk. II]. The reference about “houses being left unguarded” as contained in Megasthenes is perhaps connected with the custom mentioned in the *Arthasâstra* of leaving some parts of every house [“अविभक्तान्नाशयो”] open for all [III, viii, 61]. The mention by Megasthenes of the marriage dowry of “a yoke of oxen” corresponds to Kauṭilya’s गोविधुनादानादायः [III, ii, 59]. The practice of the Admiralty “letting out ships on hire for transport of passengers and merchandise” is also referred to in the chapter on नावयज्य. *Overseers* as a class of officials as mentioned by Megasthenes correspond to the *châras* of the *Arthasâstra* about whom so much has been said in its several chapters. Megasthenes’ reference to horses and elephants with persons specially “appointed to take care of them” is amply borne out by the chapters अवाय्य and हस्तयज्य as indicated above. The reference of Megasthenes to the *Royal Road* from east to west is corroborated by the accounts of roads in the *Arthasâstra* [VII, xii, 116] in which roads leading to the Himalayas [हिमवतः] and to the west [पूर्वपश्चिमयः पश्चिमयः] are specifically mentioned. The precautions against fire as detailed in the *Arthasâstra* [II,

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xxxvi, 56, and IV, ii, 78], where ten different remedies are laid down [इहसूचीचक्र] for universal use of householders, as also the municipal regulations by virtue of which, in all the principal roads of a city and in front of royal buildings, vessels filled with water were kept ; which forbade building straw houses in the city, and confined those who worked with fire, *e.g.* blacksmiths, to isolated parts of the city : all these have really a reference to the wooden architecture prevalent in the period as indicated in the chapter on दुर्गविवरण [Bk. II] and also mentioned by Megasthenes [Frag. xxvi].

Lastly, the testimony of Megasthenes to the high degree of development which material civilization attained in India is abundantly supported by the detailed information furnished by the *Arthasāstra* on the subject. It would take too much space, and is hardly necessary, to prove by quotations the truth of Megasthenes' remarks [Frag. i] that the Indians are "well skilled in the arts," and "while the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of

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metals . . . which are employed in making articles of use and ornament, as well as the implements and accoutrements of war." The *Arthasâstra* is a sort of running commentary on the above statements, as will be evident from Mr. Law's *Studies*, and from most of the chapters of the second Book of the *Arthasâstra*, entitled अथव्यवहार.

In conclusion, I should also note that some of the technical and peculiar words of the *Arthasâstra* which were current in its times have been used in the Edicts of Asoka which, according to the theory discussed here, belong to a later age. These are: बुद्ध [Rock Ed. III], equivalent to बुद्धः of Kauṭilya (p. 57); राजकु [R. Ed. III], corresponding to राजकु in चोरराजकु of Kauṭilya (p. 232); पापश्रेय [R. Ed. V, etc.], which occurs in Kauṭilya (p. 144 and elsewhere); वनाज [R. Ed. I], which corresponds to वनाज in the phrase उत्सववनाज of Kauṭilya (p. 121); महासना [R. Ed. XII], which is equivalent to महासना of Kauṭilya (p. 58 and elsewhere), and the like. Among the institutions which are referred to both in Kauṭilya and the Edicts may be mentioned (1) the exemption from slaughter of certain animals and birds

specially mentioned both in the Edicts and the *Arthasâstra*, e.g. चक्रवाक्, यक्, मारिका, चंभ, दाक्ष, etc. [R. Ed. V, and Kauṭilya, p. 122]; (2) the zenana system, or the seclusion of women, which is indicated by the word षोडोचने, [R. Ed. V], and is also referred to in Kauṭilya (p. 147) in the words “लीयाननिष्काशनीनाम्,” and also in the chapter सुवाच्य of Book II; (3) the planting of medicinal herbs, and fruit-trees along roads, as also the digging of wells as works of public utility, which are mentioned both in the Edicts [e.g. R. Ed. II and Pillar Ed. VII] and Kauṭilya (p. 56 and elsewhere).

We have now considered the various arguments which may be advanced to support the authenticity of the *Arthasâstra* as the production of Kauṭilya, the Minister of Chandra Gupta. Its age thus ascertained, it is difficult to overestimate its importance for the history of culture, and especially Indian culture. As an exposition of an ancient polity it takes its place by the side of the other ancient compilations such as the Babylonish Code of Hammurabi and the works on Greek politics such as those of Aristotle and Plato. The Code of Hammurabi, however, only treats of practical re-

gulations appropriate to a mercantile civilization, which are not parts of any system of polity, while both Aristotle's *Politics* and Plato's *Republic* go to the other extreme of treating only of the theory of the State and Constitution. In the *Arthasâstra* we find a combination of theory and practice, principles of government, as well as administrative details and regulations, treated with a touch of refreshing realism which is born only of a living experience of actual problems and contact with facts. The system of polity as revealed in the *Arthasâstra* is complete in all aspects and details, and exhibits those features which are characteristic of India. Agriculture and commerce, arts and crafts for which India is ever noted, receive their due treatment and emphasis in the book ; forests and mines, irrigation and famine, land revenue, census, central and municipal government, cattle and livestock, are the eternal topics of Indian administration, conditioned, as every government is, by its natural and historical environment. And when we find that all these familiar problems have been treated in the *Arthasâstra*—problems which are still exercising the British

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Government of India at the present day—we cannot but discover the operation of an evolutionary process which is ultimately governing the development of Indian administration through Hindu, Mahomedan and modern times.

RADHAKUMUD MOOKERJI.

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STUDIES IN ANCIENT HINDU POLITY.

CHAPTER I.

PRELIMINARY. MINING. IRRIGATION. METEOROLOGY.

§ 1: *Preliminary.*—The Arthaśāstra of Kauṭilya, which has been recently edited and published by Mr. R. Shama Sastri, possesses a great interest and importance not only to students of Sanskrit literature, but also to students of Indian history. It throws a flood of light on the material, social and political condition of the ancient Hindus during the third and fourth centuries before the Christian era. It is in fact a unique record of the secular aspects or developments of Indian civilization in that brilliant period of Indian history—the Age of Chandra Gupta. For information regarding this period or the sources of its history,

we had hitherto unfortunately to depend mainly upon the meagre accounts left by Greek writers whose interest in India was first roused by the invasion of Alexander. This work of Kauṭilya, however, removes to a great extent our want in this direction by opening up a mine of information which is as full as it is reliable.

I therefore propose to utilize this work, in a number of chapters, as a source of information regarding the aforesaid period.

One of the most striking features of Chandra Gupta's government revealed by the Arthaśāstra is that it achieved many triumphs in peace which were no less than those of war—in fact, Chandra Gupta was as well known for the numerical strength and the efficiency of his army and the organization of his war office as for those regulations and institutions which ensure the material welfare of a country. In the present chapter I shall refer to some of the most prominent works and institutions of public utility of his time, which are definitely indicated by passages in the Arthaśāstra.

There can be little doubt that the department of public works in the government of Chandra Gupta was fairly well organized, with

its scope and functions clearly defined. The area of its activity was quite extensive, and included among other things the working of mines, the opening of irrigation works, the establishment of factories; the maintenance of preserves and grazing grounds, of highways of commerce, waterways, land-routes, and other facilities for communication; the establishment of markets and stores; the construction of embankments, dams and bridges; the planting of fruit and flower trees, of medicinal plants and herbs (*i.e.* the establishment of Ayurvedic and pharmaceutical gardens); and lastly, the State protection of the disabled, the helpless and the infirm, and also of the lower animals, thus anticipating some of the tendencies of modern legislation. I quote below some of the passages which contain references to these works and institutions:—

(i) आकरकर्मोत्तमप्रवृत्तिवन्नजवदिकृष्यप्रचारान् वारि-
कृष्यप्रवृत्तयन्तानि च निवेदयेत् ।

—Bk. II, जनपदनिवेशः, p. 47.

(ii) सेतुबन्धोरण्याद्यर्थोदकान् सद्योदकः श्रेयान् ।

—Bk. VII, कर्मावधिः, p. 297.

(iii) एवं प्रथं द्विपवमं सेतुबन्धमाकरान्
रचेत् पूर्वकृतान् राजा कर्मावधिप्रवर्तयेत् ।

—Bk. II, जनपदनिवेशः, p. 49.

(iv) उत्तरपश्चिमभागं पश्चिमैव च ।

—Bk. II, दुर्गेजिवेष्टः, p. 55.

(v) सहीदकमाहाद्यादिकम् वा सेतुं बन्धयेत् । अन्वेषा वा
वधता भूमिभारं दक्षीणकरचानुपथं कुर्यात् ।

—Bk. II, जनपदनिवेशः, p. 47.

(vi) प्रथमवर्षकीयं सप्तमासीयं, विभक्तस्त्रीपुरुषस्त्राजमवसारतः
सुमुक्तकथं बन्धनाहारं कारयेत् ।

—Bk. II, सन्निवाहशेषकर्मा, p. 58.

(vii) भिषग्वैद्यजानां च आसादविश्वकर्मेवञ्चं गृहीत्वा पाचक-
पोषकाभ्यामात्मना च प्रतिस्त्राय राज्ञे प्रयच्छेत् ।

—Bk. I, आत्मरक्षितकम्, p. 44.

(viii) गन्धर्वज्योतीरक्षीरक्षीरक्षेण पिशाचुकादीनां वधासं भूमिषु
च आस्त्रां च अनूयाक्षीपक्षीसापयेत् ।

—Bk. II, सीतासम्पत्तः, p. 117.

(ix) सेतुं वनं व्रजं वसिकपथं चावेचेत् ।

—Bk. II, समाहर्तृसमुद्भवप्रस्थापनम्, p. 59.

(x) (a) बालहृद्व्याधितव्यसन्वनाथां च राजाविभूषात्
(b) खेन-बाल-विषपाहैः व्याधिभिश्च पश्यमान् (रचेत्) ।

—Bk. II, जनपदनिवेशः, pp. 47, 48.

(xi) वधः प्राचीना राजमार्गस्य उद्दीचीनाः ।

चतुर्दशानरा रथा राजमार्ग-त्रोचसुख-स्त्रीय-राष्ट्र-
विधीतपथाः ।

सद्योनीय-सुदृग्भ्रान-पास-पथासह-दृष्टाः ।

चतुर्दशसुतुवनपथः ।

द्विदक्षीवसिकिषेवपथः ।

पञ्चारस्यो रथपथसमारः पश्यपथः ।

द्वी सुदृग्भ्राननुपथः ।

—Bk. II, दुर्गेजिवेष्टः, pp. 54, 55.

§ 2: *Mining*.—Let us first turn to the working of mines. The only two passages in Megasthenes that are worthy of note in this connexion are :—

“And while the soil bears on its surface all kinds of fruits which are known to cultivation, it has also underground numerous veins of all sorts of metals, for it contains much gold and silver, and copper and iron in no small quantity, and even tin and other metals which are employed in making articles of use and ornament as well as the implements and accoutrements of war.”—Book I, Fragment i.

The second passage is :—

“The robes are worked in gold and ornamented with precious stones, and they wear also flowered garments made of the finest muslin.”—Book II, Fragment xxvii.

These passages show, no doubt, that there were extensive mining operations in those days, but do not satisfy our curiosity as to their details. The *Arthasâstra*, however, does this. According to it, there were two classes of mines, viz. (i) ocean mines and (ii) land mines, and expert superintendents were appointed in charge of each class. The duty of the superintendent of ocean mines was to look after the collection of diamonds and other precious stones, pearls, corals, conch-shells and salt. The regulation of the trade in these articles was also one of his duties. It may be

noted in passing that ocean mining unquestionably indicates great progress in the art of navigation and shipbuilding, which will be dealt with hereafter.

A scientific expert was appointed to the post of superintendent of land mines. In the first place, he had to perform the difficult work of prospecting and discovering new mines on plains and mountain slopes. He had to examine and infer from slags, ashes and other such indications whether a mine had been exhausted or not. This department was manned by several other experts, as also by mining labourers. It was also equipped with the necessary scientific apparatus.

The superintendent was guided in his work of prospecting by his knowledge of the signs and properties of the mineral ores. He had to pay particular attention to the depth of colour, weight, smell, taste, oiliness, adhesiveness, power of amalgamating with particular metals, and several other mechanical and chemical properties of the ores, in order to ascertain the nature and richness of a mine. We find in the Arthasāstra the properties of several metals classified, and the large number and variety of

them necessarily lead one to the conclusion that mining reached a stage far above the rudimentary, and that the persons who devoted their attention to it possessed no small power of discrimination. As an illustration¹ I quote below the passage which enumerates the signs of the different kinds of silver ores. It says that the silver ores are those which have the colours of शङ्ख, कर्पूर, स्फटिक, नवनीत, कपोत, पारावत, विमलक, मयूरपीवा; of सखक, गोमेदक, मुद्ग मत्स्यष्टिका; of कौविदार, पद्म, पाटली, कलाय, शौमपुष्य, चातशीपुष्य; which are found in combination with शीघ्र, अञ्जन, are विश (smelling of raw meat), भिन्न, चेतान्न, कृष्ण, कृष्णान्न, चेत and छेडाविन्दुविच; do not split, and emit much foam and smoke. Similarly, we find mentioned the properties of the ores of gold, float-gold, bitumen, copper,² lead,³ tin,

¹ शङ्ख-कर्पूर-स्फटिक-नवनीत-कपोत-पारावत-विमलक-मयूरपीवावर्षाः । सखक-गोमेदक-मुद्ग-मत्स्यष्टिकावर्षाः । कौविदार पद्मपाटलीकलाय शौमानशीपुष्यवर्षाः । सशीघ्राः साञ्जनाः विशा भिन्नाः चेतान्नाः कृष्णाः कृष्णान्नाः चेताः सर्वे वा छेडाविन्दुविचान् मृद्वो भ्राशमाना न स्फुटन्ति बल्लेषेषुमाश्च रूपघातवः ।

—Bk. II, आकरकर्मान्प्रवर्तनम्, p. 82.

² Ores of copper— भारिकस्त्रिगधो मृदुश्च प्रस्तरघातुर्भूमि-भागी वा पिङ्गलो हरितः पाटलो छोदितो वा तावघातुः । *Ibid.*, p. 83.

³ Ores of lead— काकमेचकः कपोतरोचनावर्षः चेतराजिनदो वा विशस्त्रीघातुः । *Ibid.*

iron, etc. It is apparent from this that the classification is an elaborate one, and the industry in Chandra Gupta's time reached an advanced stage.

When the superintendent discovered a new mine, he intimated it to Government, stating at the same time the nature of its contents. The Government had to decide whether it would work the mine directly or lease it out to private persons. It was only in the case of those mines that required a large outlay to work them that Government leased them out.

The purification of the ores during the actual exploitation of the mines is an interesting study. The metals were purified by treating them with ingredients most of which were organic. The passage¹ quoted below enumerates these ingredients: नीच्य, urine, alkalies, राजदृच, बट, पोक्षु, cow's bile, urine and dung of buffalo, etc. Again, metals were made permanently or temporarily malleable

¹ तेषाम् (धातूनाम्) अशुद्धा मुहुर्जनी वा नीच्यसूचचारमा-
विता राजदृचबटपोक्षुगोपितरीचमा मच्चिब-अरकरडसूच-अच-
पिचबहासत्-प्रतीवापासद्वक्षेया वा विशुद्धासुचनन्ति ।

—*Ibid.*, p. 82.

manufacture of metal weapons ; a superintendent of the mint (सुवसाध्यः) for minting coins from gold, silver, copper, etc. ; a superintendent of the treasury (कोशाध्यः), one of whose principal duties was to look after the formation of ornaments of precious stones such as necklaces and bracelets. Commerce in the manufactured metal articles was in the hands of Government. There was a separate superintendent to look after and regulate commerce in salt (सवसाध्यः).

There were regulations for the departments of the superintendents ; but leaving them for the present, let us turn to the different kinds of rates that were levied from mines.¹ These were, as the passage quoted below shows—
 (1) मूल्य, (2) विभाग, (3) बाजरी, (4) परिच, (5) चालक,
 (6) मूल्य, (7) वैचरच, (8) दण्ड, (9) रूप and (10) रुपिक.

Before leaving the subject of mines, it should be noted that in Bk. IV, वाचकमीनुद्योगः, there is a passage which lays down the punishment for a Brāhman who has committed a heinous offence, viz., that though he must not be tortured in any case, his property may be

¹ एवं मूल्यं विभागं च बाजरीं परिचमत्ययम्
 मूल्यं वैचरचं दण्डं रूपं रुपिकमेव च । *Ibid.*, p. 85.

confiscated or he may be *condemned to the mines*.¹ This resembles the punishment inflicted in Rome on criminals for an offence of the grosser sort.

§ 3: *Irrigation*.—We now turn to the next point, viz. irrigation. That there was an elaborate system of irrigation in the time of Chandra Gupta is already known to us through Megasthenes :

“The greater part of the soil is under irrigation, and consequently bears two crops in the course of a year.”—Bk. I, Fragment i.

And again,

“Some superintend the rivers, measure the land as is done in Egypt, and inspect the sluices by which water is let out from the main canals into other branches, so that everyone may have an equal supply of it.”—Bk. III, Fragment xxxiv.

These statements are borne out by the Arthaśâstra, and, moreover, certain details are added which we do not find in Megasthenes
In the passages

वसुप्रवर्तिमनुदभामं पञ्चमं दसुः ।
 स्रग्प्रवर्तिमं चतुर्थम् ।
 सोतस्रग्प्रवर्तिमं च तृतीयम् ।
 चतुर्थं नदीसरसटाककूपोद्घाटम् ।

—Bk. II, सीतास्थलः, p. 117.

¹ (ब्राह्मणं पापकर्मणम्) कुर्यान्नविषयं राज्ञा वासवेदाकरेण वा । Bk. IV, p. 220.

we see that water-rates (उदकभाज) varied according to the modes of irrigation, which were four in number, viz. irrigation by hand (हस्तप्रावर्तिन), irrigation by water carried on shoulders (कन्यप्रावर्तिन), irrigation by some mechanical contrivance (स्रोतयन्त्रप्रावर्तिन), and irrigation by water raised from tanks and rivers (नदीसरसडाकडूपोद्गाढन). The rates were one-fifth, one-fourth, one-third and one-fourth of the produce respectively. Again, in Bk. III, वासुविक्रयः, p. 170, which speaks of remission of taxes in the case of repair of old tanks and construction of new ones, and also in the case of improvement and extension of waterworks, we find it laid down—वातप्रवर्तिनमन्दिनिवन्धाद्यतन-तडाककेदारारामवखवापानां सख्यपर्यभाजोत्तरिकमन्धेभ्यो वा यथो-पकारं दद्युः। which shows that there were not only means of raising water by bullocks, but also *contrivances worked by wind power, i.e. wind-mills*. In the next passage—

सेतुभ्यो सुस्रतस्रोचसपारे षट्पथो दमः

पारे वा तीयमन्धेषां प्रसादेनोपवन्धतः ।

a fine of six paņas is laid down for letting out the water of canals *otherwise than through the sluice-gate* (सपारे) and for hindering the flow of water through the same (पारे). This passage

confirms the existence of sluice-gates referred to by Megasthenes.

In the above couplet the word चेतुष्पत्तः cannot be taken as the technical term for canals; for the term is a general one and has been used in several senses in the Arthashastra, e.g. bridges, watercourses, embankments.¹ But in Book II,² वीताशयः, we meet with the word कुशावापानां,³ which means countries where water is drawn from कुशा. This term कुशा means an artificial watercourse, and was perhaps the technical name for canals.

Special care was taken for keeping tanks and other waterworks in good repair, and the minimum fine in the case of those who were prone to neglecting them, viz. the owners of rent-free lands, was fixed at double the loss caused by their remissness.⁴ There were other regulations, e.g. one prohibiting men from emptying a tank of its water and from allowing the water of a higher tank to flow

¹ Bk. III, p. 166; Bk. II, pp. 47 and 60; Bk. VII, pp. 297 and 805.

² Also Bk. II, pp. 54 and 122.

³ (अमितम् वर्षप्रसादम्) वीतानां च कुशावापानां च । p. 116.

⁴ अप्रतीकारे वीतद्विमुक्तौ दण्डः, p. 170.

into a lower one unless the latter had been useless for three consecutive years.

§ 4: *Meteorology*.—I cannot conclude this account of irrigation without pointing out that in those remote days the people had a workable knowledge of the science of meteorology. They had some sort of *rain-gauge* which enabled them to measure the rainfall in a particular tract of country in a given time.¹

(i) षोडशद्रोणं आङ्गुलानां वर्षप्रमापन् मध्यमाम्नापानां देशवा-
पानामर्धं च सोदराङ्गकानां तयोर्विंशतिरवन्तीनामस्मितमपरान्तानां
देिनन्यानां च कुक्कापापानां च कालतः ।

(ii) वर्षेचिभानः पूर्वपश्चिममाद्ययोः, द्वौषिभानौमध्यमयोः सुपमा-
रूपम् ।

(iii) तस्योपलब्धिवृषस्यतेस्त्वानमसमनर्भाषानेभ्यः शुक्रोद-
शासमयचारेभ्यः सूर्यस्य प्रकृतिवैकृताश्च । सूर्याद्द्वीजसिद्धिः ।
दृश्यतेस्त्वस्थानां सम्यकरिता । शुक्राद्बृहिरिति ।

(iv) त्वस्युग्नादिकानेषां च शीतिः कचशीकराः
वहिरातपनेषानां रषा वृष्टिस्तुमाश्रिता ।²

The lines quoted above show that they arrived

¹ कौट्यागारे वर्षमानमरत्नमुच्यं कुचं स्थापयेत्—Bk. II, सत्रि-
चादधेयकर्म, p. 58. A vessel with its mouth 1 aratni wide was
used as a *rain-gauge*, and one such vessel was put before the
store-house. (1 aratni = 24 angulas = about 2 ft.; an angula =
the middle joint of the middle finger of a middle-sized man)—
मध्यमस्य उपपस्य मध्यमाया च कुक्का मध्यप्रकर्षोऽङ्गुलम्—Bk. II,
देशकासमानम्, p. 106.

² *Vide* शीताऽध्यायः, pp. 115, 116.

at definite conclusions as to the quantity of rainfall in particular places. In Jaṅgala (जङ्गल) countries the rainfall is 16 droṇas (a droṇa being a cubic measure); in the country of the Āsmakas (अस्मक), $18\frac{1}{2}$ droṇas; in Avanti (अवन्ती), 23 droṇas, and so on [passage (i)]. Besides, the rainfall is considered to be even, if it occurs during the commencing and closing months, *i.e.* Srāvaṇa and Kārtika, and two-thirds in the middle months, *i.e.* Bhādra and Āśvin [passage (ii)]. The third passage speaks of the forecast of rainfall that can be made by observing the position, motion, etc., of the sun and Venus and Jupiter; the germination of seeds can be inferred from them also. The last passage indicates an elaborate classification of the clouds according to their characteristics. It speaks of three kinds of such clouds as poured in heavy showers for seven days together, eighty kinds of clouds that rained minute drops, and sixty kinds that appeared with sunshine. All this shows that the science of meteorology was brought to such a developed stage that the people could depend on its conclusions and guide their actions in their day-to-day work of sowing seeds and reaping harvest.

CHAPTER II.

THE DEPARTMENT OF LIVE STOCK:
CATTLE AND PASTURE.

WE have in the previous chapter dealt with some of the public works of utility as described in the Arthaśâstra. We have seen how a special department existed for the development of mining, the impetus to the discovery of mines being given in the shape of a share in the mines discovered;¹ and how the department was placed under the charge of experts conversant with all the processes of that difficult industry. We have also seen how the promotion of irrigation was looked upon as one of the duties of the State and was not left to

¹ If a private person discovered a mine, he got one-sixth of it as his share; if he happened to be a Government servant, one-twelfth: अग्निरग्निमिधिवेदेषु षष्ठसंश्रमिवेषा सुभेत । द्वाद-
शसंश्रं भूतकः । अतस्य षड्दशसंश्रं राजगामी मिधिः । अने षष्ठसंश्रं
दद्यात्—Bk. IV, कावकरचरण, p. 202.

the meagre resources of private enterprise. In connexion with irrigation, we have also seen how the necessity of meteorological observations was recognized, and even simple contrivances were in use for purposes of rain-gauge (वर्षमानम् कुण्डम्).

We shall now turn to other institutions of public utility maintained by the State. It is a noteworthy fact that the importance of live stock to India, pre-eminently the country of agriculture, was then fully realized, and special care was taken by the Government for their healthy growth and improvement. Even at the present day Indian agriculture has been held to be suffering much from want of proper grazing grounds and commons for cattle and of a proper supply of fodder;¹ but in Chandra Gupta's time we find a special department to provide for pastures and grazing grounds for a proper supply of fodder and for the welfare of live stock in general. There were no less

¹ Compare in this connexion the following extracts from the article on agriculture in the *Imperial Gazetteer* (new edition): "In the deltaic areas and in the rice-tracts generally, the cattle are miserably weak. Grazing lands are here limited or totally wanting . . . General improvement is hopeless without assured fodder supplies . . ."—Vol. iii, pp. 77, 78.

than six chief officers for running this department: (i) गोशय्य, the superintendent of cows; (ii) विवीताशय्य, the superintendent of pastures and grazing grounds; (iii) खनाशय्य, the game-keeper; (iv) वस्त्राशय्य, the superintendent of elephants; (v) कुशाशय्य, the superintendent of forests and forest produce; and (vi) अश्वशय्य, the superintendent of horses.

Let us first turn to the first of these officers. It must not be supposed that the superintendent of cows, as the name indicates, had to take care of cows alone. In fact, he had to do with other animals also, such as buffaloes, sheep, goats, asses, camels, pigs, mules and dogs. One of his chief duties was to appoint milkers (दोहक), churners (मन्वक) and hunters (शुन्वक) for fixed wages, to each of whom was assigned a herd of 100 heads.¹ He had also to see that the bulls were tamed and trained to the yoke by the cowherds (गोपालक), and that strings were put through their noses,² as also

¹ गोपालक-पिष्टारक (buffalo-herdsmen)—दोहक-मन्वकशुन्वकः शतं शतं वेनुनां चिरच्छभृताः पाशयेषु । शीरघृतभृताश्च वस्त्रानुपचन्युरिति वेतगोपभादिकम्—Bk. II, गोशय्यः, p. 128.

² दोहकाश्चमतिक्लामतस्तत्फलदानं दृश्यः । एतेन नस्यदस्य-युग्मविन्मनवर्षनकाशा व्याख्याताः—*Ibid.*, p. 180.

to settle terms with herdsmen for the tending of animals under their charge. These terms were of four kinds :—

(i) Appointing, on fixed wages, cowherds and buffalo-herdsmen, each of whom was placed in charge of 100 head. This arrangement was called वेतनप्रतिपादिक. ¹

(ii) Appointing, on payment of a certain fee, cowherds, each of whom was placed in charge of a herd of 100 head, containing in equal numbers the following five classes of cattle, viz. aged cows (अरदुग्ध), milch cows (धेनु), pregnant cows (गर्भिणी), young cows (पटौरी), and female calves (वत्सतरी). The fee was 8 vârakas (i.e. $8\frac{3}{8}$ seers) of ghee, as well as the tail and branded ² skin of dead cows. This system was called करप्रतिकर. ³

(iii) Appointing, on the principle of profit-sharing, cowherds whose herd comprised cattle

¹ Vide footnote (1) on previous page.

² There were special brands to distinguish private cattle from the royal. Tampering with the royal brands was punishable: परपशुनां राजाङ्केन परिवर्तयिता रूपस्य पूर्व्यं साहसदण्डं दद्यात् । (गोऽध्यायः) ।

³ अरदुग्ध-धेनु-गर्भिणी-पटौरी-वत्सतरीणां समविभागं रूप-प्रतमेकः पाशयेत् । घृतस्नाही वारकान् पशिकं पुच्छं अङ्गुचर्मं वार्षिकं दद्यादिति करप्रतिकरः ।—*Ibid.*

with diseased limbs (बाधितान्धजाति), those which could not be milked or were difficult to milk (अदोषदुर्दोषः), and those that killed their calves (पुच्छग्री). Each herd was composed of the above four classes in equal numbers. As the tending of these herds was difficult, it was rewarded by a share in the out-turn from the herds. This arrangement was known as भद्रोत्सृष्टक.¹

(iv) Engagement of the services of the superintendent by private parties for tending their herds in the event of their own inability to do so, either from danger of thieves, or from apprehended danger from forests. In these cases, the fee charged by the Government was a tenth of the produce. This system was termed भद्रानुप्रविष्टक.²

One other particular regarding these herds should be noted in passing. The total number of each herd was fixed at 100, but the number of male animals in each herd varied with its

¹ बाधितान्धजात्यदोषोदोषदुर्दोषापुच्छग्रीणां च समविभागं रूप-
भ्रतम् पाशुपन्नासज्यातिकं भागं दद्युरिति भद्रोत्सृष्टकम् ।

—*Ibid.*

² पञ्चक्राडवी भद्रानुप्रविष्टानां पशूनां पाशुपन्धर्मेण दत्त-
भागं दद्युरिति भद्रानुप्रविष्टकम् ।—*Ibid.*

composition. A herd of 100 head of asses and mules was to contain five male animals; that of goats and sheep, ten; while that of cows, buffaloes or camels, four.¹

There was a *register of cattle*, kept by the superintendent. In it were noted the following varieties of cattle, viz.—male calves (बन्धाः), steer (बल्लतराः), tamable draught oxen (दम्यावचिनो हवाः), bulls for impregnating the herd (उचवः पुङ्गवाः), oxen for pulling carts drawn by pairs (युगवाहनशकटवहाः हवमाः), cattle of which the flesh was food (खनाः), buffaloes (महिषाः), draught buffaloes (वृद्धकान्तवाचिनः महिषाः), female calves (बलिकाः), heifers (बल्लतरी), young cows (घडीघी), pregnant cows (मलिघी), milch cows (घेनु), cows and buffaloes that had not yet calved (अप्रजानाः) or were barren (बन्धाः), male and female calves only a month or two old or still younger (मासद्विमासजानाश्चासासुपजा बन्धा बलिकाश्च).² These, together with the cattle that strayed away and were not claimed for a month or two by the owner who lost them (मासद्विमास पय्युपिताः), were branded, and the superintendent registered each of them

¹ पशुधर्मं चराचानामजादीनां दशधमम्
अथ गोमहिषोद्गावां यूपं कुर्यात्पशुधर्मम् ।—*Ibid.*

² *Vide* “गोपधमः” ।

according to its class as mentioned above, and also according to the brand, natural signs, colour, and distance between the horns. This duty of the superintendent was termed **व्रजपर्येषम्**.¹

The superintendent had also to take note of those animals that were missing (**नष्ट**) and also of those that were lost for good (**विनष्ट**). Those that were stolen, had got mixed up in the herds of others, or had disappeared in other ways, were called **नष्ट**. Animals were regarded as **विनष्ट** when they met with either natural or violent death. Thus, it was recorded whether they died of poison, disease, old age, from being buried in mire or drowned in water; whether killed by tree or stone falling upon them, struck by lightning (**ईशान**), or fallen a prey to tiger, snake, crocodile or forest fire.²

The State fixed the scale and standard of diet normally necessary to keep up the health, vigour and working capacity of all live stock.

¹ अङ्गं चिक्रं वर्षं गृह्णान्तरं च ज्ञापयन्नेवमुपजानिबन्धयेदिति व्रजपर्येषम् ।—*Ibid.*

² चोरहृतमन्यसूयप्रविष्टमवलीनं वा नष्टम् पङ्क-विषम-व्याधि-करा नोषाधारावसन्नं दृक्षतटकाष्ठशिलाभिहतमीशानव्याजसर्प-पाह द्वावाधिविपन्नं विनष्टं प्रमादाद्भ्याभवेयुः—*Ibid.*

The following table gives particulars about the dietary of bulls that were provided with nose-strings and equalled horses in speed and carrying loads.¹

For the aforesaid bulls :—

Quantities.	Approximate modern equivalents.
½ bhāra of meadow-grass (बवस)	1½ seer.
1½ bhāra of straw (दण्ड)	3 seers.
1 tulā of oil-cakes, with cheese ² if necessary to make them more palatable	2½ chataks.
10 āḥakas of bran (कणकुण्ड)	12 chataks.
5 palas of salt (सुखसवस)	2½ sikis (about ½ kancha).
1 prastha of drink (पान)	1½ kancha.
1 tulā of मांस, i.e. fleshy part or pulp of fruits	2½ chataks.
1 drōṇa of barley (बव) or of cooked bean (माष)	4½ chataks.
1 āḥaka of curd (दधि)	1½ chatak.
1 drōṇa of milk (शीर)	4½ chataks.
½ āḥaka of liquor (सुरा)	2½ kanchas.
1 prastha of oil or ghee (क्षेप)	1½ kancha.
10 palas of molasses (चार)	4½ sikis.
1 pala of ginger (शुद्धिवेर) may be substituted for drink (पान)	1½ or about ½ siki.
1 kuḍumba of oil for rubbing over the nose (तेलकु-सुन्धीनख)	1½ siki. ³

¹ बलीवर्दानां नखाश्चमद्रतिवाहिनां बवसस्यार्धभारः, etc.—
मोक्षचः ।

² किराटी—(cheese)—घाषपिष्ठाक—क्षेदाई—*Ibid.*

³ The above measurements have been made on the basis of गुञ्ज (gunja) seed or two माष's (māshas) being taken as the unit of calculation, equivalent to 1½ grains (Troy). See the chapter

The same quantities of the above commodities less by one-quarter formed the food of mules, cows and asses ; and twice the above quantities were given to buffaloes and camels. The quantities fixed above, however, could be varied to suit the needs of particular occasions. For example, the rations allowed to oxen kept to work were proportioned to the length of time they were worked, and in the case of cows that were milked, an increase was made in the amount of food.¹ The main items of food were of course water and straw, which were always given in plenty to all cattle,² while whey (उद्दित्) was given to pigs and dogs.³

There were various rules regarding the milking of cattle and the standard of dairy produce of all kinds. The milkers had to milk

entitled तुल्यमानपीतवम् (Bk. II), which describes the weights and measures then in vogue. The measurements given therein coincide in the main with those arrived at independently from other Sanskrit works by Monier Williams in his famous Dictionary.

¹ पादोनमन्तरजोशराणां, द्विमुषं महिषोद्गाणां कर्मकरवली-
वर्दीनां, पायनार्थानां च धेनुनां, कर्मकासतः पशुतश्च विधा-
दानम् ।

² सर्वेषां कषोदकप्रकाशमिति गोमण्डलं व्याख्यातम् ।

³ उद्दित् चवरादिभ्यो दद्युः ।

the cattle once or twice a day according to the seasons. Thus, in the rainy and autumnal seasons and in the first part of winter (रेवन्त), they had to milk both in the morning and in the evening, while in the other seasons, only once in the day; and if anyone violated this rule and milked a second time, he was visited with the cruel penalty of having his thumb cut off. They had to milk at stated hours and make good any loss caused by neglect of this rule.¹

The churners had generally to conform to certain fixed proportions in regard to the preparations of milk. Thus, it was fixed that 1 prastha, *i.e.* $1\frac{1}{3}$ kancha, of ghee would be produced from 1 droṇa, *i.e.* $4\frac{2}{3}$ chataks, of cow's milk, one-fifth as much more from the same quantity of buffalo milk, and one-half as much more from the same quantity of milk of a goat or sheep. Where any variation of the above proportions occurred, as it must occur through a change in the quantity and quality of the food given to cattle, the exact quantity of ghee was ascertained by actual churning,

¹ वर्षाशरद्वेसन्तानुभवतः कालं दधुः । शिशिरवसन्तधीमानेक-
कालम् । द्वितीयकालदीग्धुरकुष्ठच्छेदी दधुः ।—दीधकालमति-
क्रामतकल्पकालं दधुः ।—(गोऽध्यायः) ।

and was fixed as the modified standard to which churners had to conform.¹

Besides the rules relating to the yield of living cattle, there were also rules regarding that of the dead. In case of the natural death of a cow or a buffalo, the herdsmen had to surrender the skin with the branded mark. The same rule applied to the cases of goat, sheep, ass, camel, etc. The herdsmen had also to give up the fat, bile, marrow, teeth, hoofs, horns and bones of the dead animals.²

Again, animals like goats and sheep were shorn every six months, and their wool (जर्बा) was made over to the superintendent.³

MEDICAL TREATMENT OF CATTLE.

It was also the duty of herdsmen to apply medicines to diseased animals. The due dis-

¹ चीरझीचे नवां घृतप्रसन्नः । पञ्चभागाधिको मस्तिषाणां । द्विभागाधिकोऽजावीनां । मन्वो वा सर्वेषां प्रमाणं भूमिदृषोदकविशेषादि चीरघृतद्विर्भवति ।—(गोऽध्यायः) ।

² कारवन्नतस्त्राङ्गचर्मं गोमस्तिषस्य कर्षलक्षयमजाविकामान् पुच्छमङ्गचर्मं चाश्वशरोद्गाणां बालचर्म-वस्ति-पित्त-स्नायुदन्तशुर-श्लेष्मास्तीनि चाश्वरेषुः ।—*Ibid.*

³ अजादीनां चारमासिकीमूर्धां प्राहयेत् । तेनाश्वशरोद्गवराश्व-त्रया वाह्याताः ।—*Ibid.*

charge of this important duty was secured by a healthy rule providing that when, owing to defects in medicine or carelessness in the treatment, the disease of an animal became serious, a fine of twice the cost of the treatment should be imposed; and when, owing to defects in the nature of the medicine itself, the animal died, a fine equal to the value of the animal was imposed.¹

Lastly, there were several humane regulations to prevent the cruel treatment of animals. There was a fine of 1 or 2 paṇas² by which causing pain with sticks, etc., to minor quadrupeds was punished. This fine was doubled when the beating caused the animal to bleed. In the case of larger quadrupeds the above rates were doubled, and, in addition, an adequate compensation was demanded to cover the expense of curing the beasts.³

¹ वासुदेवव्याधितानां गोपालकाः प्रतिकुर्युः ।—*Ibid.*

क्रिया शेषव्यसङ्गेन व्याधिद्वयी प्रतीकारद्विगुणो दण्डः । तदवरोधेन वैद्यस्यै पचमूलं दण्डः । तेन गोमण्डलं शरीरद्वन्द्विषमजाविकं च व्याध्यातम् ।—Bk. II, अन्वयः, p. 185.

² A paṇa is a weight of copper used as a coin = 20 māshas = 4 kākils.—Monier Williams.

³ शूद्रपशूनां काष्ठादिभिर्दुःखीत्यादेन पशो द्विपशो वा दण्डः । श्रोत्रितोत्यादेन द्विगुणः । मन्त्रापशूनामेतेष्ववस्थानेषु द्विगुणो दण्डः, समुत्पन्नव्ययम् ।—Bk. III, दण्डपादव्ययम्, p. 197.

We find it laid down that cattle such as a calf, bull or milch cow must not be slaughtered. A fine was imposed on those who slaughtered or tortured the animals to death.¹

We have seen already how the diet of cattle was regulated. We shall now see what arrangement was made for grazing them on pastures. For opening, preserving and improving the grazing grounds, a separate superintendent, called विलीनाध्यक्ष, was appointed. He had to observe various rules regarding the working of his department. We find it distinctly laid down that the same forest could not be used as pasture for the cattle of neighbouring villages and towns throughout the whole year. Particular forests were assigned to particular seasons (ऋतुविभक्तमरणम्). Thus a system of rotation was introduced by which the pastures were kept up unimpaired, with their resources unexhausted by continuous use.² Pastures were generally opened

¹ वत्सो ह्यपो धेनुष्विनामवध्याः । घातः पञ्चाशत्को दण्डः ।
क्लिष्टघातं घातयतश्च ।—Bk. II, विलीनाध्यक्षः, p. 122.

² ऋतुविभक्तमरणम् खेनत्याजपरवाचमवधमृत्तुविभक्तमरणम्
चारयेयुः—Bk. II, विलीनाध्यक्षः ।

in forests, in uncultivated tracts, and in intermediate areas between places infested by wild animals, thus promoting at the same time the reclamation of waste lands.¹ There were thus several pastures in a locality, and it was the business of the herdsman to see which of them would suit the cattle under his charge. He was naturally guided by two considerations, viz. the physical strength of his cattle and the degree of protection from danger available either from persons or from the security of the place.²

As to the kinds of animals that were allowed admission into the grazing grounds, we have information from two passages,³ the first of which mentions cows, buffaloes, goats, sheep, asses, camels, horses, and mules; the second, which appears in a different context, referring

¹ वृक्षश्यावां भूमौ पशुभ्यो विवीतानि प्रयच्छेत् । (Bk. II, भूमि-
च्छिन्नविधानम्, p. 49); मवाक्रेषु च विवीतं खापयेत् । (Bk. II,
विवीताध्यक्षः, p. 141); and ऋतुविभक्तमरणम् चारयेयुः (*supra*).

² उपनिवेशद्विभिन्ने मोषचारान् वृक्षाभ्यते वा गवां रक्षा-
सामर्थ्यात् ।—Bk. II, मोक्षध्वजः ।

³ (i) मोक्षध्वजमजाविकं करोद्भ्रमन्तराच्च व्रजः—Bk. II, समा-
चर्तुसमुदयप्रस्थापनम्, p. 60.

(ii) मवाचरथोद्गानां च व्रजः—Bk. VII, हीनशक्तिपूरणम्,
p. 805.

to cows, horses and camels as being the animals that flourish on pastures and are the source of power to the king.

The safety of the cattle was one of the chief concerns of the superintendent of pastures. It was ensured by the appointment of hunters, who maintained a pack of hounds to aid them in their work of watching thieves and enemies and warding off danger from snakes, tigers, etc.¹ The hunters had recourse to the following means of calling in the aid of the king and the king's men :—

(i) Blowing conch-shells and beating drums (शङ्खदुन्दुभिश्चन्दन्).

(ii) Remaining concealed amid trees and mountains, and afterwards sending the information (शैलवृक्ष-विक्रवाः).

(iii) Riding away on swift horses, etc. (श्रीघ्नवाहनाः).

(iv) Flying carrier pigeons belonging to the king's household, with royal passports attached to them (राज्यः सुहायुक्तेः मृचकपोतैः).

¹ चोर-बाह्यमयाग्निभारणानि शोधयेत् । सुन्धकचमदिनः परि-
त्रजेयुररखानि—Bk. II, विधीताध्यायः, p. 141.

सुन्धकचमदिनभिरपास्य क्षेत्र-बाह्यपरबाधमयमुत्तुविमल्लभारण
चारयेयुः—Bk. II, मोऽध्यायः (also quoted *supra*).

(v) Announcing danger by a succession of beacon fires (धूमाग्निपरम्परया).¹

Besides these general precautions that had to be adopted by the superintendent of pastures, the duty of taking special protective measures was thrown on the herdsmen themselves. They had to attach bells or other sounding instruments to the necks of timid animals. These served the double purpose of scaring away snakes and other undesirables and of helping the herdsmen to easily find out, by following the direction of the sound, the animals that went astray.² When the cattle required watering and bathing, their safety was secured by leading them only to those streams and ponds which were marked out as being free from mire (चकईन) and crocodiles (चपाच), and the approaches to which were gradually sloped instead of being abrupt and steep (समबूढ़तीर्थ).³

¹ मन्त्रराशिवाभ्यागमे शङ्खदुन्दुभिश्चन्द्रमप्राच्याः कुर्व्युः । मेषदृश-
विकृता वा, शीघ्रवाचना वा, अग्निचाटवीसचारं च राज्ञोऽष्टक-
पोतैर्मुद्रायुक्तिर्द्वारयेयुः, धूमाग्निपरम्परया वा ।—Bk. II, विवी-
ताध्यक्षः, p. 141.

² सर्पव्याजवासनाथी मोक्षरानुपासज्ञानार्थी च चकूनां वृष्ठातूर्थ्यं
च वप्रीयुः ।—Bk. II, मोक्षध्वजः ।

³ समबूढ़तीर्थमकईमपाचमुद्रकमवतारयेयुः पाद्वयेयुश्च—*Ibid.*

Another direction for the guidance of the herdsmen was that they should divide the cattle, while grazing, into groups of ten according to colour, the object being to avoid confusion between herds and to facilitate the herdsman's work of singling out his herd after grazing.¹ The cowherds were strictly prohibited from allowing the bulls under their charge to fight in the grazing grounds, and were fined for violating the rule.²

There were also a few rules applying to losses of cattle by theft or otherwise. If any animal were stolen, or killed by snakes, etc., or died through old age or disease, the herdsmen had to report it forthwith to the superintendent of cows; otherwise, they had to pay as penalty the price (रूपमूल्य) of the animal lost.³ If an animal belonging to the flocks under गोस्थलः were killed or stolen, the crime was visited with capital punishment; but if it were

¹ वर्षावरोधेन द्वावर्गोर्णा रक्षकं करणीयम् ।—*Ibid.*

² वृषहृषं वृषेणावपातयतः पूज्यः साक्षसदस्यः घातयतः उत्तमः ।
(पूज्यसाक्षसदस्य—a fine ranging from 48 to 96 panas)—गोस्थलः ।

³ ज्ञेयमालसपं-पाद-मृहीतं बाधित्तरावसन्नं च चावेदसेयु-
रन्यथा रूपमूल्यं भजेरन् ।—*Ibid.*

replaced by another, only a fine was inflicted. Rewards were also given to those who recovered the stolen cattle from thieves.¹

¹ स्वयं दत्त्वा वातयिता हर्ता चारयिता च बध्मः । परपशूनां राजाङ्गेन परिवर्त्तयिता रूपस्य रकैकस्य पूर्णं साहसदण्डं दद्यात् । स्वदेशीयानां चोरद्वृतं प्रत्यागीयं पश्चितं रूपं चरेत् । परदेशीयानां मोचयिताऽर्धं चरेत्—*Ibid.*

CHAPTER III.

THE DEPARTMENT OF LIVE STOCK (*continued*):
GAME, FORESTS AND HORSES.

IN the last chapter have been described the functions of two of the six chief officers who were to perform special duties in connexion with live stock, viz. the superintendent of cows and the superintendent of pastures. The present chapter will detail the functions of three of the remaining officers, viz. the gamekeeper, the superintendent of forests, and the superintendent of horses.

THE GAMEKEEPER.

The Government of Chandra Gupta addressed itself in various ways to the protection of lower animals. There were issued specific regulations affording State protection to certain classes of animals, and for this purpose were

also established and maintained forests (वनववन), the animals whereof were exempted from capture, molestation and slaughter. Into these forests none could enter, and the violation of this rule was visited with fines.¹ For the enforcement of these regulations a special superintendent was appointed called खनाथच (gamekeeper).

The following were the classes of animals that were given protection :—

(i) Birds, deer and other animals living in the forests under State protection, as well as fishes in the ponds therein.²

(ii) Those birds, fishes, deer and other animals that do not prey upon life.³

(iii) Calves, bulls and milch cows.⁴

(iv) Ocean animals resembling elephant,

¹ प्रदिहामवानाममयवनवासिनी च मृग-पशु-पक्षि-मत्स्नानां वनवचक्षिंसायामुत्तमं दण्डं कारयेत् । कुटुम्बिनां वनववनपरि-पक्षेण मध्यमं ।—Bk. II, खनाथचः, p. 122.

उत्तम दण्ड, a fine ranging from 500 to 1000 paṇas; मध्यम दण्ड, a fine ranging from 200 to 500 paṇas.—Bk. III, साहस्य, p. 192.

² See the foregoing passage.

³ अप्रहतववानां मत्स्यपक्षिणां वनवचक्षिंसाणां पादोनसप्रविंशति (26½)—पक्षमत्यसं कुर्वीत । मृगपशुनां द्विगुणं ।—(खनाथचः) ।

⁴ वत्सी दृषो घेनुसैवामवधाः । घातः पञ्चाशत्को दण्डः । खिदघातं घातयतच ।—*Ibid.*

horse, man, ox or ass. This, by the way, points to a close familiarity with the ocean and marine life.¹

(v) Fishes in rivers, lakes and canals (कुशा).²

(vi) A few game-birds, specifically named as follows: चारु (crane) in rivers, lakes and canals, क्रीच (osprey), उत-क्रीचक (sea-eagle), हात्यूच (gallinule, an aquatic bird), चंस (goose or gander, swan, flamingo, etc.), चक्रवाक् (Brahmany duck), जीवजीवक (a kind of pheasant), भृङ्गराज (fork-tailed shrike), चकीर (partridge), मत्कोकिल (cuckoo), मयूर (peacock), युक (parrot), महनशारिका (*Turdus salica*—birds like mainâ).³

(vii) Those birds and beasts that were regarded as sacred.⁴

Moreover, tolls were levied upon the capture

¹ चासुद्र इत्यस्य-पुरव-इय-नर्षभास्तवः—सुनाथसः ।

² मत्स्याः नादेवासटाककुलीकुवाः—*Ibid.*

³ चारुषा नादेवासटाक कुलीकुवाः । क्रीच-उतक्रीचक-हात्यूच-चंस-चक्रवाक्-जीवजीवक-भृङ्गराज - चकीर - मत्कोकिल - मयूर - युक-महन-शारिका विहार-पक्षिषी माहस्याद्यान्येषि प्राचिनः पक्षिमृगा विंसावाधेभ्यो रक्ष्याः । रक्षातिक्रमे पूर्वसाचसदसः (a fine ranging from 48 to 96 panas).—*Ibid.*

⁴ माहस्याद्यान्येषि प्राचिनः पक्षिमृगा विंसावाधेभ्यो रक्ष्याः—(*Supra.*) An interesting list of protected animals, some of which also appear in this list, is given in Asoka's Rock Edict V.

of those birds, beasts or fishes that preyed upon life and were thus the legitimate objects of capture. Of the live captured animals, the gamekeeper took a sixth, to be afterwards set at large in special forests under the State, and a tenth or more was appropriated by Government.¹

For the safety of the protected animals in the State forests, any animal growing vicious or in any way harmful to the rest was captured and killed outside the forests.²

HUNTING FORESTS.

Hunting down game animals in the hunting forests was allowed, and not only the king himself but also private individuals enjoyed the privilege. We learn from Asoka's Rock Edict VIII that it was a practice with the kings to go out on hunting excursions, which Asoka abolished in the eleventh year of his reign. Megasthenes also describes the

¹ प्रदत्तचिंसाणां परिस्वहीतानां षड्भागं स्वकीयात् । मत्स्य-
पक्षिणां दशभागं वाषिकं मृगपशूनां श्वत्सं वाषिकं । पक्षिमृगाणां
जीवत्षड्भागं अमवयमेव प्रमुञ्चेत् ।—(सूनाप्यथः) ।

² दुष्टाः पशुमृगवासा मत्स्यावाभवचारिणः
अन्वय मुनिस्त्वानेभ्यो वधवन्धननामुतुः ।—*Ibid.*

grand scale on which the royal hunting was organized.¹

It seems from the extract of the Arthashastra quoted below that the king had a hunting forest exclusively for his own use. It was provided with only one entrance (एकद्वारं) and had a canal running round it to ward off intrusion (आतङ्गं). Inside were planted fruit-trees, thornless plants, creepers and shrubs (आतङ्गस्य अन्तर्गच्छन्तः कृत्वाः), and there was also a large tank (उत्तमानतोवाश्रयं). There roamed at large not only the milder game animals (दान्तमृग-चतुष्टयं) but also some of the wilder ones, but deprived of their natural offending weapons like nails and teeth: viz. tigers, male, female and young elephants, and other game animals (मघनशरं द्रव्यास-सार्गायुक्-वृक्षि-वृक्षिनी-कलभ-मृगवर्गं).²

Besides this imperial hunting forest, there were other hunting forests³—all under the

¹ Megasthenes, Bk. II, Fragment xxvii.

² तावन्माचनेकद्वारं आतङ्गं आतङ्गस्य अन्तर्गच्छन्तः कृत्वाः उत्तमानतोवाश्रयं दान्तमृगचतुष्टयं मघनशरं द्रव्याससार्गायुक्-वृक्षि-वृक्षिनी-कलभ-मृगवर्गं विहारार्थं राज्ञः कारयेत् ।—Bk. II, भूमि-शिल्पविधानम्, p. 49.

³ सर्वातिथिसूत्रं प्रत्यन्तो चान्यन्मृगममं भूमिवर्गेण वा निवेशयेत् ।
—Bk. II, भूमि-शिल्पविधानम् ।

general superintendent (कुषाध्यक्ष), who had another duty to perform in connexion with live stock, viz. the capture, when needed, of birds and beasts under his care.¹

THE SUPERINTENDENT OF HORSES.

The superintendent of horses had manifold duties to perform, viz. : (1) to keep a register of horses ; (2) to classify them according to breed, age, colour, marks, size, etc. ; (3) to provide for their stabling ; (4) to determine their rations ; (5) to break and train them according to their mettle ; (6) to provide for their medical treatment by veterinary surgeons ; and (7) to arrange for the taking of proper care of them in other ways, as detailed below.

Registration and classification.

Horses were registered not only according to their natural qualities, but also in several artificial but convenient ways. Thus, horses were regarded as belonging to the three classes or types of तीक्ष्ण (fiery), भद्र (gentle) and मन्द

¹ अकारतुषभकानि मृगयस्यपक्षिवाहीवाटाः काष्ठद्वारा-
चेति ।—Bk. II, कुषाध्यक्षः, p. 100.

(sluggish).¹ They were also classified according to the places of their origin. Among these have been mentioned the following places, some of which have been identified :—

- (1) काम्बोज (Kâmbhōja), (2) सिन्धु (Sindhu), (3) आरट्ट (Āraṭṭa), (4) बनावु (Banâyū), (5) बाल्हिक (Bâlhika), (6) सौवीर (Sauvira), (7) पापेय (Pâpeya), (8) तैतला (Taitala).²

¹ तेषां तीक्ष्णमद्रमन्दवरेण साज्ञास्यमीपवाद्यकं वा कर्म प्रयोजयेत् ।—Bk. II, अथाथः, p. 188.

² प्रयोस्यानामुत्तमाः काम्बोजकसैन्धवारट्टजवानायुजाः । मध्यमा बाल्हिक-पापेयक-सौवीरज-तैतलाः । श्रेयाः प्रत्यवराः ।—*Ibid.*

Identifications :—

- (1) काम्बोज—Afghanistan: Kaofu (Kambu) of Hiuen Tsiang. (N. L. Dey's *Geographical Dictionary*.)
 (2) सिन्धु—Sindh.
 (3) आरट्ट—Punjab, land of the Arâshtrakas, i.e. the kingless. (Cunningham's *Geography of Ancient India*, p. 215.)
 (4) बनावु—Arabia. (बाचस्पत्यम् of T. N. Tarkavachaspati.)
 (5) बाल्हिक—Balkh in Central Asia. (Monier Williams.)
 (6) सौवीर—or Sophir of the Bible; according to Cunningham, the same as the modern Eder in Guzerat. (*Geogr. of Anc. Ind.*, p. 497.)

It is interesting to note that almost all the places mentioned above appear in the following sloka of the Râmâyana :—

काम्बोजविषये जानैर्बाल्हिकैश्च स्योत्तमैः
 वनावुजैर्बह्वीजैश्च पूरुषां हरिं स्योत्तमैः ।

—Bâlakânda, Sarga 6, sloka 22.

बह्वीजाः in the sloka = सिन्धुनदी सौवीरज्ञवाः । (Râmânuja.)

Of these places the first four were held to supply the best breed of horses, and the remaining four, horses of the second quality. Horses of inferior quality came from other places. Thirdly, there was another method used to classify horses, viz. by the way in which horses were procured. According to this method, horses could be of the following descriptions :—

- (1) पञ्चामारिकं (brought to the sale-house for sale); (2) ऋषोपानतम् (recently purchased); (3) साहवसुत्वम् (captured in war); (4) साजातम् (of local breed); (5) साहायकानतम् (sent for help as loan); (6) वनस्युतम् (wild and fresh from forest); (7) यावत्कालिकं (kept in the stable only for a while).¹

A method of testing horses.

The mettle of a horse was inferred from certain measurements of parts of its body as explained below :—

The face (मुख) of the best horse measures 32 angulas.

¹ साहायकः पञ्चामारिकं ऋषोपानतसाहवसुत्वसाजात साहाय-
कानतकं वनस्युतं यावत्कालिकं वाऽत्रपर्यपं कुसुवयोवर्षाच्चिह्न-
वर्णानिर्लेखयेत् ।—(साहायकः) ।

Its length (आयतन), five times its face = 160 angulas.

Its shank (जङ्घा), 20 angulas.

Its height (उत्सेध), four times its shank = 80 angulas.

A defect of 3 angulas must be allowed in the above measurements in respect of horses of the second quality, and of 6 angulas in respect of inferior qualities.

The girth (परिबाह) of the best horse is 100 angulas ;

of horses of second quality, 95 angulas ;

of horses of lowest quality, 90 angulas.¹

Stables.

The provision of suitable stables was one of the chief duties of the superintendent. This is also hinted at by Megasthenes.²

The size of each stable was of course determined by the number of horses to be kept therein. The length of each room of the

¹ द्वाविंशद्दण्डं मुखमुज्ज्वलात्, पञ्चमुज्ज्वलात्, विंशत्यङ्गुला जङ्घा, अतुज्ज्व उत्सेधः, स्यङ्गुलावरं मध्यमावरयोः, मताङ्गुलाः परिबाहः, पञ्चमाजावरं मध्यमावरयोः ।—*Ibid.*

² "There are royal stables for the horses and elephants . . ." —Bk. III, Fragment xxxiv.

stable was to be double the length of a horse. It had four doors on the four sides, and an open space in the middle where horses could roll themselves.

The breadth of the apartment for each horse was to be four times the width of the horse, and its floor was to be paved with smooth wooden planks (स्रक्ष्णफलकाक्षारं). It must have a trough for food (सखादनकोष्ठकं), and be provided with apertures for the removal of excreta. The rooms should face preferably the north and the east. Horses, mares and colts had separate compartments.

There were spacious corridors (सप्रथीवा) in the stable provided with doors, and there were seats and pegs (वासन-फलक) for monkeys, peacocks, spotted deer (वपत), mungooses (नकुल), partridges (चकोर), parrots (शुक) and mainâs (भारिका).¹ The object of keeping these animals in the stable becomes apparent from a passage

¹ अश्वविभवेनाश्वतामश्वानाम् द्विमुखविस्तरां चतुर्द्वारोपावर्तनमर्थां सप्रथीवां प्रद्वारासनफलकयुक्तां वानर-मयूर-वपत-नकुल-चकोर-शुक-भारिकाभिराकीर्षीं शाखां निवेशयेत् ।

अश्वानाम् चतुरस्रस्रक्ष्णफलकाक्षारं सखादनकोष्ठकं समूच-पुरीषीतसर्मनेकैकशः प्राङ्मुखमुदङ्मुखं वा खानं निवेशयेत् । शाखावशेन वा दिग्भिर्भागं कल्पयेत् । वङ्गनाट्यकिशोराणां रक्षानेषु ।—(अश्वशास्त्रः) ।

in Bk. I, निरान्नप्रतिषिः, which runs as follows :
 “ Cats (मार्जार), peacocks (मयूर), mungooses (मङ्गुस)
 and spotted deer destroy snakes ; parrots (शुक),
 mainâs (मारिका) or fork-tailed shrikes (मृङ्गराज)
 shriek out when they smell poison ; ospreys
 (क्रीच) get excited in the vicinity of poison,
 pheasants (जीवञ्जीवक) feel distressed, cuckoos
 (मत्तकोकिल) die, and partridges (चकोर) redden
 their eyes.”¹ It may be noted in this con-
 nexion that the practice of keeping monkeys
 in stables in the belief that horses keep good
 health in their company, still obtains.

Rations.

The superintendent regulated the rations of
 the horses under his charge in the following
 ways :—

For the best horse :—

Quantities.	Modern equivalents.
2 drôṇas (द्वौष) of any one of these grains, viz. भाति, ग्रीधि (rice), barley (घब), panic-seed or mustard-seed (प्रियङ्गु) half- dried or half-cooked, or boiled सुद्ध or माष (kinds of pulse)	9½ chataks.

¹ मार्जारमयूरमङ्गुसश्चतुर्भेदोत्सर्गास्तुर्षाम् भक्षयन्ति । शुकमारिका मृङ्गराजो वा सर्पविषशङ्कायां क्रोशति । क्रीचो विषाभ्यामेवाप्यति । श्रापयति जीवञ्जीवकः । निवसते मत्तकोकिलः । चकोरस्तस्यैवैविरज्यते ।—Bk. I, निरान्नप्रतिषिः, p. 40.

Quantities.	Modern equivalents.
1 prastha (प्रस्थ) of oil	1½ kancha.
5 palas (पल) of salt	2½ sikis.
50 palas of मांस (fleshy part or pulp of fruits)	1 chatak 4 sikis.
1 &dhaka (आढक) of रस (drink)	1½ chatak.
2 &dhakas of curd (दधि)	2½ chataks.
5 palas of sugar (शार) for making food palatable	2½ sikis.
1 prastha of liquor	1½ kancha.
2 prasthas of milk (पशुः)	2½ kanchas.

Those horses that were tired by long journey or by carrying loads were given 1 prastha of oil or ghee more for perfuming their food (अनुवासनं), 1 kudumba (1½ siki) of oil or ghee for rubbing over the nose, ½ bhâra (भार), *i.e.* 1½ seer, of meadow-grass (बबस), twice as much of straw (हव) and hay for a bedding of 6 aratins (12 ft.) or as much straw as can be held within the arms (पद्भरतिः परिशेषः पुञ्जीकपादो वा हवस्य भुजद्वयपरिच्छिन्नपादः).

The same quantity of rations less by one-quarter was given to horses of medium and inferior quality. A draught horse or stallion of medium size was given the same quantity as the best horse, and draught horses of lower size the same quantity as a horse of medium quality.

Mares and mules (परजनसु) were given one-

quarter less of rations. A mare that had just given birth to a colt was given 1 prastha or $1\frac{1}{2}$ kancha of ghee for the first three days ; then for the next ten days, 1 prastha, *i.e.* $1\frac{1}{2}$ kancha, of मक्ख (i.e. pounded gram, etc.), and oil or ghee mixed with medicine. Afterwards, she was given पुञ्जाक (boiled rice), चनच (meadow-grass), and other things suited to the season.

Half the rations of mares was generally given to colts ; but a colt of ten days was fed on $\frac{1}{4}$ kuḍumba ($\frac{1}{4}$ siki) of ghee, 1 kuḍumba ($1\frac{1}{2}$ siki) of मक्ख and 1 prastha ($1\frac{1}{2}$ kancha) of milk till it was six months old. Gradually, the above rations were increased half as much during each succeeding month, with the addition of 1 prastha of barley, till it became three years old. It was given 1 drôṇa ($4\frac{1}{2}$ chataks) of barley until four years of age, when it became fully developed and serviceable.

Training given to horses.

Horses were employed for the purposes of war or for ordinary purposes, according to their mettle. They were therefore trained not only for ordinary work of the State in times of peace

(वीपवाहकं), but also for the more difficult movements required in war (उत्साह्यन). The latter movements were of the following kinds :—

(i) वलन (circular movement):—(a) वीपवेद्युक्त (turning in a circle with a diameter = 1 cubit); (b) वर्धमानक (advancing, and yet turning in a circle as above); (c) वनक (running the figure-of-eight); (d) चाकीड्युक्त (running and jumping simultaneously); (e) हवाह (movement of only the forepart of the body); (f) हवचाकी (movement of only the hinder portion of the body).

(ii) नीचीर्जन (slow movement with the head and ears kept erect):—(a) प्रकीर्षक (a combination of the movements mentioned above); (b) प्रकीर्षोत्तर (same as the previous, but with one kind of movement kept prominent); (c) निवच (a movement in which the hinder part of the body is kept steady); (d) पार्श्वानुहन (movement sideways); (e) उर्ध्वनिर्माण (movement up and down like a wave); (f) हरमन्त्रीकृत (playing like a हरमन्, a kind of deer); (g) हरमन्मुक्त (leaping like a हरमन्); (h) त्रिपादक (a movement using only three legs); (i) वाह्यानुवृत्त (moving right and left); (j) पञ्चपादिक (movement by using two and three legs alternately); (k) सिंहासन

(pacing like a lion); (*l*) सापून (long strides); (*m*) सिद्ध (moving straight without a rider); (*n*) साधित (moving with the forepart of the body bent); (*o*) चूड़ित (moving with the hinder part of the body bent); (*p*) पुष्पामिकीर्ष (zig-zag motion).

(iii) कपटन (jumping):—(*a*) कपटन (jumping like a monkey); (*b*) शिकटन (jumping like a frog); (*c*) एकपटन (sudden jump); (*d*) एकपादपटन (jumping with one leg); (*e*) कौकिलचंचारि (leaping like a cuckoo); (*f*) डरक (dashing with the breast almost touching the ground); (*g*) बकचारी (leaping like a crane).

(iv) घोरेण (gallop):—(*a*) काङ्क (imitating the flight of a heron); (*b*) चारिकाङ्क (dashing like a water-duck); (*c*) मयूर (running like a peacock); (*d*) अर्धमयूर (half the speed of a peacock); (*e*) मङ्गुष्ठ (dashing like a mungoose); (*f*) अर्धमङ्गुष्ठ (half the speed of a mungoose); (*g*) गाराण (running like a boar); (*h*) अर्धगाराण (half the speed of a boar).

(v) नारोद्ध is सहाप्रतिकार, *i.e.* response to signals.

Over and above these a few kinds of trot are enumerated as follows:—

(1) मार्गः—(*a*) विह्वल (trotting according to strength); (*b*) महाबाह (trotting with good

breathing); (c) भारवाह्य (trotting with a load on the back). (2) चारा :—(a) विक्रम (pacing according to strength); (b) वक्रिम (pacing with circular movement); (c) उपकण्ड (pacing with gallops); (d) उपजव (middle speed); (e) जव (low speed).¹

Medical treatment of horses.

The superintendent had to report to the king the number of horses that were diseased or had defective limbs (अप्रशान्वाह्यवाधितांवावेदयेत्), and put them under the treatment of veterinary surgeons, whose duty was not only to treat the diseases of horses, but also to see that all parts of their body were harmoniously developing. They gave advice to the superintendent regarding the change of diet of the horses to suit particular seasons. They were fined if the diseases were aggravated or took a bad turn, and had to make good the loss if a horse died through defective treatment.²

¹ The explanation of the above technical terms has been taken mostly from the Commentary of Bhaṭṭasvāmi.

² अश्वानां चिकित्सकाः शरीरश्लाघद्विप्रतीकारमृतुविभक्तम् चार्थारम् (प्रतिदिनेषु) :—(अश्वश्लघः) ।

क्रियाभिन्नश्लघेन वाधिवृद्धी प्रतीकारदिगुणो दण्डः । तदपराधेन वैखीमे पत्रमूखं दण्डः ।—*Ibid.*

A few other rules.

As regards the distances to be traversed by draught horses, the rule was that they should run six, nine, and twelve yojanas¹ according to their quality. Five, eight, and ten yojanas were the maximum limits of distance for riding horses.

Horses disabled by disease, age or war and rendered unfit for active service were relieved from all work.²

The grooms (सुवपायक), those who bound them in stables (बन्धपायक), supplied meadow-grass (खाद्यपायकः), prepared the meals of horses (विद्यापायक), watched the stables (स्नानपायक), dressed their hair (केसकार), and detected poison (जाहृशीविद्) were liable to a fine of a day's wages for neglect of duty.³ The जाहृशीविदः were the grooms, cooks and veterinary surgeons, for it was they who had to taste the

¹ A yojana = 6½ miles.

पचनं द्वादशेति योजनान्ध्या रथ्यानां, पचयोजनान्ध्याह-
नानि द्वादशेति दृष्टवाह्यानामस्नानान्ध्या ।—(अन्वयः) ।

² सुवपायिजराकराकर्मशीवाः पिण्डमोचरिकाः सुवसमरप्रयोषाः ।
पीरजानपदानाम् अर्थेन नृपा नृद्वान् आधीषाः ।—*Ibid.*

³ कर्मोत्तमने तेषां दिवसवेतनभेदनं कुर्यात् ।—*Ibid.*

food of the horses.¹ The attendants of horses were enjoined to make a careful use of what they brought from the treasury or the store-house for purposes of the stables, so as to prevent waste.² There were expert rope-makers for making ropes for horses; while the manufacture of accoutrements was the work of the chariot-makers (हस्ताः).³

Ceremonies observed for the welfare of horses.

In conclusion, it should be remarked that horses were accorded an almost human treatment, which indicates the great value attached to them. Besides the rules prescribed by experience and science to secure the health and well-being of horses, there were certain religious ceremonies observed to influence unseen forces in their favour. The horses were regularly washed, bedaubed with sandal, and even garlanded twice a day. On new-moon days, the

¹ विद्यापाचकं हस्तपाचकं चिकित्सकाः प्रतिस्नाहभाजः ।—*Ibid.*

² क्रोत्रकोट्टाजाराभ्याम् च ऽट्टीना मासकामम् च चववाचश्चिन्तयेत् ।—*Ibid.*

³ तेषां वस्त्रनीयकरुषं योम्नाचार्थीः प्रतिदिग्नेषु । सर्पाभिकं रथावाहकहारं च हस्ताः ।—*Ibid.*

sacrifice to *Bhûtas* was performed ; and on full-moon days, auspicious hymns were chanted. On the ninth day of the month of Âsvin, and also at the beginning and end of journeys, the priest invoked blessings on horses by performing the ceremony of चारत्नि, or the waving of lights.¹

¹ द्विरक्ष्णानसन्धानां जन्मसाक्षं च दापयेत्
 क्ष्णसन्धिषु भूतेषुः श्णेषु सन्धिषु च नम् ।
 नीरामयामाचक्षुषे चारत्नेष्वग्नेषु
 चापादाववसाने वा आशी वा ज्ञान्दिषु रतः ।—*Ibid.*

CHAPTER IV.

THE DEPARTMENT OF LIVE STOCK (*continued*):
ELEPHANTS.

ONE of the four well-known divisions of the old Hindu army was the elephant force, on the efficiency of which depended to a great extent the efficiency of the army as a whole.¹ There has been on record many a battle in early Indian history in which elephants carried the day. Hence the rearing up of a good breed of elephants was recognized as one of the special cares of Chandra Gupta's Government, which made itself famous by the strength of its army organization. The killing of an elephant was visited even with capital punishment, which shows the great care taken for them by the State.

¹ The references in this chapter are to मुनिविद्याविद्यानम्, ब्रह्मसंहिता: and वृद्धिसंहिता: Bk. II.

The department of elephants had several officers. At the head was **बख्शबख्श**, the superintendent of elephants, whose main duties were (1) to see that the elephant forests were well protected, and (2) to superintend the internal arrangements in the elephant stables and the proper training of elephants by experts. The immediate work of the maintenance and upkeep of the elephant preserves was, however, not his look-out. This was left to another officer called **नाजबनाजबख्श**, the superintendent of elephant forests. He had a staff of assistants called **नाजबनाजबख्श**'s, the keepers of elephant forests, through whom he had to acquaint himself with the limits as well as the paths leading into and out of the forests—especially those that were mountainous or boggy or contained rivers or lakes. The capture of elephants was also their concern, in which they were helped by a special set of men. These were: (i) **बख्शिपक** (elephant drivers); (ii) **बाहपात्रिक** (those who slip nooses round the legs of elephants); (iii) **बैजिक** (boundary guards); (iv) **पारिकर्षिक** (servants for miscellaneous works); (v) **बनखरक** (foresters); and (vi) **बजीकख** (elephant trainers).

The need for the presence of elephant trainers (अनीकच), mentioned last in the above list, was owing to the fact that they alone could readily ascertain those elephants that were fit for capture; for certain classes of elephants were exempted from capture, viz. those that had small tusks like those of female elephants (मूढ),¹ diseased (आरित्त) or pregnant elephants as well as those that suckled their young (मर्मिणी and धेनुका), and elephants below twenty years of age or without tusks (नक्तच); young elephants (विद्ध) were as a rule allowed to remain at large, and only a few were captured to train for sports.

The captors, with five or seven female elephants (अस्त्रियस्त्री) which had been specially taught the devices of capture, roamed about in summer—the season for the capture of elephants—in the forests, and traced the whereabouts of herds of elephants by following the course of their dung and urine (अस्त्रिमूत्रपुरी-पद्ममन्त्र) and by observing their footmarks (पदा), the spots where they reposed (मयास्नान), and the banks of rivers, lakes, etc., damaged by them (हृद्यपातीदेहेन). The captors passed along the

¹ *Vide* Bhaṭṭasvāmi's Commentary.

lines of भङ्गातकी trees (*Semecarpus anacardium*), called Bhelâ (बेला) in Bengali. One of the reasons for this was perhaps that the trees, being very shady, afforded a good resting-place for the animals, where the herds or clues to their wanderings were most likely to be found. It is also possible that the leaves and branches of the trees formed a favourite food of the animals, for भङ्गातक is mentioned as a medicinal plant in the extant works¹ on अस्त्यायुर्वेद and अचर्याक alike, the properties of which, according to medical authorities (quoted in *Elephants and their Diseases*, by Lt.-Col. Evans, p. 144), are mainly those of a stimulant, and admit of both internal and external uses.

The exact devices that were employed for catching the elephants are not described in the Arthaśâstra, but an extract from Megasthenes

¹ छमयो यदि बाले खुर्जाता भङ्गातकीः सद्यः
विपाच्य सार्पयं तैलं क्वाटं चपयेद्भजे ।

—अस्त्यायुर्वेदः, by पाञ्चक्यायस्मृति, p. 208.

मधुकं केसरं पत्रं भङ्गातकविभीतकम्
मङ्गुपुष्पं बद्धा सारं समभग्नेन मिश्रितम्
कासारं सद्युद्धितः क्षाबोऽथं विपलात्मकः
अन्नास्यवर्द्धकः सस्यस्य कावाधिदीपकः ।

—अचर्याकम्, by नकुल, p. 58; see also p. 54 (*ibid.*).

bearing on this point is worth quoting. It runs as follows :—

“ The manner of hunting the elephant is this. Round a bare patch of ground is dug a deep trench about 5 or 6 stadia (a stadium=202½ yds.) in extent, and over this is thrown a very narrow bridge which gives access to the enclosure. Into this enclosure are introduced three or four of the best-trained female elephants. The men themselves lie in ambush in concealed huts. The wild elephants do not approach this trap in the daytime, but they enter it at night, going in one by one. When all have passed the entrance, the men secretly close it up; then, introducing the strongest of the tame fighting elephants, they fight it out with the wild ones, whom at the same time they enfeeble with hunger. When the latter are overcome with fatigue, the boldest of the drivers dismount unobserved, and each man creeps under his own elephant, and from this position creeps under the belly of the wild elephant and ties his feet together.”—Megasthenes, Bk. III, Fragment xxxvi.

The sources of supply of elephants in those days were the following places, viz. : (i) कच्छ, (ii) अह, (iii) कच्छ¹ (eastern portion of the district of Shahabad in Behar), supplying elephants of the best quality; (iv) प्राञ्च (the east), (v) दक्षिण,² (vi) अपरान्त³ (western countries, viz. Konkan and Malabar), supplying elephants of medium quality; and (vii) गुजराट (Guzerat),

¹ N. L. Dey's *Geogr. Dict.*

² दक्षिण has been identified with modern Mandasore.

³ *Vide* N. L. Dey's *Geogr. Dict.*

(viii) पञ्चजन,¹ supplying elephants of inferior quality.

STABLES.

There were two sets of stables, one in the fort and the other outside; in the former were kept those elephants that had already been trained for war and riding, and in the latter those that were being tamed, together with the refractory ones.

An elephant stable was twice as high as the length of an elephant, and its width was half its height; it was made to face either the north or the east, had separate apartments for female elephants, had a spacious corridor (पीठा), and was provided with smooth, square, T-shaped tether-posts called कुमारी, which were as long as the length of an elephant, and between which were placed apertures for the removal of excreta. Their place for sleeping was similar to that for standing, with this difference, that in one half of it was a raised platform for the elephant to lean upon.

¹ पञ्चजन probably stands for पञ्चगव, a place in Northern India, which is referred to in the Mahabharata, Sabhā Parva, ch. 27, in connexion with the Northern conquests of Arjuna, thus: किरिटी जितवान् राजन् देवान् पञ्चगवांसतः ।

Stabling staff.

For the stabling of elephants a good number of officers was employed. A list of such officers set forth in the Arthaśâstra mentions the following: (i) चिकित्सक (elephant doctors); (ii) चरणीकस्य (elephant trainers); (iii) चारीक (ordinary drivers or *mâhuts*); (iv) चाक्षोरक (expert *mâhuts* able to control the pace and movement of elephants); (v) हस्तिपक (grooms or elephant keepers); (vi) शीपचारिक (attendants); (vii) विषापाचक (cooks); (viii) घासपिक (grass suppliers); (ix) पादपात्रिक (those who put fetters round their feet); (x) कुलीरक (guards); (xi) उपरात्रिक (those who take care of the elephants at night).

These officers were given wages and allowances of food, and a deduction was made from their dues for negligence in their duties, *e.g.* allowing a stranger to ride the elephants, striking them in the vital parts of their bodies, not cleansing the stables, etc.

Daily routine.

Their bathing hours were fixed once in the morning between 6 and 7.30 and again in

the afternoon between 3 and 4.30. The two bathing hours were followed by hours for meals. The forenoon was the time for their physical exercise, and afternoon for their training. Two out of the eight parts of the night were spent in sleep (सुप्त) and three in drowsiness (संवेदनीयतादि).

Rations.

The quantity of ration to be given to an elephant was regulated generally according to its age, which was inferred from its size and other physical features; and for this purpose elephants were divided into three groups, viz. :—

(i) those that were 14 feet high, 18 feet long, and 20 feet in girth, and were from these measurements inferred to be of forty years of age; (ii) those that were thirty years old; and (iii) those that were twenty-five years old.

The diet for the second group was one-quarter less than that of the first; and the diet of the third group was one-quarter less than that of the second.

The dietary of the first group comprised the following :—

Quantities.	Modern equivalents.
1 drōṇa of rice (तण्डुल)	4½ chataks.
½ ādhaka of oil (तैल)	1½ chatak.
8 prasthas of ghee (सर्पिष)	8½ kanchas.
10 palas of salt	4½ sikis.
50 palas of मांस, <i>i.e.</i> fleshy parts or pulp of fruits	1 chatak 4 sikis.
1 ādhaka of रस (drink) or }	1½ chatak.
2 ādhakas of curd }	
10 palas of sugar (खार) for making food palatable	4½ sikis.
1 ādhaka of liquor (मद्य) or }	1½ chatak.
2 ādhakas of milk (पशुः) }	
2 bhāras of meadow-grass (बभर)	6 seers.
2½ bhāras of मूष्य (sporting-grass)	6½ seers.
½ bhāra of hay	½ seer.

And any amount of stalks of various sorts of pulse.

1 prastha of oil (1½ kancha) and ½ prastha of the same (¾ siki) were given respectively for rubbing the body and the head with, and ¾ prastha for a light in each apartment (प्रादीपिक).

An elephant of 16 feet in height, and in rut, was given the same amount of food as one of 14 feet, and the rest when in rut were given food according to their size. A young elephant captured for sports (विज) was fed on milk and meadow-grass.

TRAINING OF ELEPHANTS.

It was one of the most important duties of the superintendent of elephants to see that proper training was given to the animals under his charge by expert trainers. The elephants were divided into the following four classes according to their training:—

(i) दम्ब (those that were being tamed); (ii) सान्नायक (those trained for war); (iii) उषवायक (those trained for riding, etc., in times of peace); (iv) बाहक (those that were refractory and difficult to be broken).

The taming of elephants had several clearly marked out stages.

The process began when the animal was brought to attach itself to a herd of tamed elephants, and lost its wildness by contact with them; this was called the यूथगत (juthagata) stage of the training. Then the animal was cleverly thrown into a pit specially dug, to subdue its ferocity; this was the अपपतगत (apapâtagata) stage. The next step in the taming (वारिगत—vârigata) was to keep the animal confined within a particular area of the forest instead of allowing it to roam at large.

The next disciplinary measure was to tie the animal to a post when it was found to be sufficiently gentle for the purpose (स्तम्भगत—*stambhagata*). The taming was completed when the elephant became so gentle that it allowed its driver or trainer to sit on its withers without protest; this was the स्कन्धगत (*skandha-gata*) stage.

Of the elephants tamed in the above way some were selected for military training and some for purposes of ordinary work.

As regards military training, the preliminary steps adopted were to accustom the elephant to girths (हस्तकर्म) and collars (शिरोकर्म) and to co-operation with a herd in a common work (द्वयकर्म). Then the animal was taught the following movements necessary for war:—

(i) उद्वहान (rising, bending, jumping over fences, etc.); (ii) संवर्तन (turning); (iii) संयान (moving forward straight or transverse, or making serpentine movement); (iv) वधावध (killing and trampling down); (v) वसिष्ठ (fighting with other elephants); (vi) नानरावध (assailing forts and cities); and (vii) संधानिक (other cognate movements relating to war).

With regard to the training of elephants in

riding, they were first taken through the preliminary processes of discipline, through **भारदकर्म**,¹ **वीरकर्म** or drudge-work, and **भारोद्दकर्म** or responsiveness to signs. Then they were trained in the following movements, viz. :—

(i) **आचरण** (nimble motion); (ii) **कुक्षरीपवाह** (being mounted from another elephant); (iii) **चोरण** (trotting); (iv) **आधानमनिक** (moving with two or three legs); (v) **बद्धुपवाह** (readiness to be driven by means of a stick only); (vi) **तोषीपवाह** (submitting to an iron hook); (vii) **सुक्षीपवाह** (readiness to be driven by mere signs); and (viii) **भारोद्दक** (being trained in hunting).

Lastly, there were those elephants that were regarded as the failures of training. Their viciousness generally consisted in aversion to work, obstinacy, perversity, unsteadiness and bad temper. There were three classes of such elephants, viz. : (1) *suddha*, having unmitigated

¹ Bhaṭṭasvāmi has explained **भारदकर्म** as the process by which elephants unfit for work owing to excessive fatness or leanness, or other defects, were rendered useful. The word **भारद** also occurs in the **वृत्तवाक्योद्** of **पाञ्चक्यायन**, p. 49, to denote elephants that were weak, naturally, or through some disease or effect of medicines :

प्रकृतः भारदो बन्धुप्रवृत्तवाक्योद्
प्रकृता आचिन्तिवापि दुर्लभवीर्यैरपि ।

viciousness ; (2) *svrata*, clever at mischief; and (3) *vishama*, i.e. having vices of all types. The only way to keep them under control was by punishment and the use of fetters and other means to control their vicious tendencies. For these purposes there were in use bridles (पारायव), leg-chains (परिचेद), frontal fetters (उत्तर), hooks (अङ्गुल), and other mechanical devices.

ORNAMENTS.

Among the ornaments of elephants are mentioned necklaces such as वीजवन्दी, सुरप्रसाद, as well as housings (आवरण) and howdah (कुच) ; and among war accoutrements are mentioned mail-armor (बर्मी), clubs (नीलर), quivers of arrows (शरपात्र), etc.

MEDICAL TREATMENT.

As in the case of cows and horses, there were doctors employed to apply medicines to elephants suffering from diseases due to overwork, rut or old age. Their chief duties were, however, preventive in their character—taking care that the physical conditions surrounding the life of the elephants conformed strictly to the rules of hygiene and

sanitation (आनन्दवि). Failure to take the necessary steps for the health of elephants was punishable with fines. There was also inspection as regards the proper growth and harmonious development of all the parts of the body of an elephant. This was regulated according to several standards and types of its physical development.

There were also certain rules for the cutting of tusks of elephants. Elephants born in countries irrigated by rivers had speedy growth of tusks, which were cut once in two-and-a-half years; and for mountain elephants, whose tusks grew more slowly, it was done once in five years. The rule was to leave at the root a length equal to twice the circumference of the tusk measured at its base.

CEREMONIES FOR THE WELFARE OF ELEPHANTS.

Ceremonies were observed to propitiate unseen agencies for the welfare of elephants. Thus, आरति or the waving of lights was performed thrice daily in the rainy season and at the periods of conjunction of two seasons. Sacrifices to *Bhûtas* were also performed on

new-moon and full-moon days, as also to सेनाजी or Kârtikeya, the god of war.

We have now completed our account of the Department of Live Stock in Chandra Gupta's Government, and have seen the comprehensive character of its scope and work touching the welfare and growth of the useful animals on which depended to a great extent both the economic prosperity and political security of the country.

CHAPTER V.

MEANS OF COMMUNICATION.

§ 1.—LAND ROUTES AND CONVEYANCES.

CONSIDERING the vast extent of the empire of Chandra Gupta, embracing as it did the whole of Northern India from the Bay of Bengal to the Arabian Sea, an area wider even than that of British India, it is evident that the machinery of government by which the administration of this mighty empire was carried on was highly elaborate and developed, the product of evolution through centuries. It implied the existence of all the principal factors on which depends the efficiency of such governments, viz., a well-disciplined army of sufficient strength, a well-organized system of administration, and a well-developed system of communication by which the heart of the empire was brought into constant and vital connexion

with its distant and various parts. We shall have occasion to speak in another place of the organization of Chandra Gupta's army and administration. In the present chapter we shall confine ourselves to an account of the means of communication that existed in Chandra Gupta's time, the network of roads, trade routes and water routes, etc., that, radiating from the centre at Pāṭaliputra towards the four quarters of the empire, covered up the entire territory embraced by it. Among the principal agencies of transport, we shall have to refer to vehicles and conveyances as also to ships and boats which established and carried on the intercourse not only between the different parts of the country along the recognized water routes, but also the intercourse of the empire with the outside world across the seas.

As already pointed out, the trade routes led towards all the four quarters of the empire—north, south, east and west, as is apparent from the passages quoted below. The number of routes in each direction seems to have been determined by consideration of traffic. From this standpoint Kauṭilya regards the routes leading to the south as more important than

those leading to the Himālayas ; for while the latter brought to market the supply of blankets, skins and horses, the former facilitated the supply of such valuable commodities as diamonds and other precious stones, pearls, gold and conch-shells, of which Southern India was the noted home for ages. On the same considerations it is also stated that of the southern trade routes the more important were those that passed by a larger number of mines, carried a larger volume of traffic in merchandise of various kinds, and were hence used by a larger number of men. There were also other routes leading to the east and to the west, the importance of which was also determined as above.¹

One of these routes was undoubtedly what has been mentioned in Megasthenes as the "Royal Road"² connecting Pāṭaliputra with

¹ अक्षपथेषु—“सैन्यतो दक्षिणापथाच्छेद्यान् हस्त्यश्वा-जम्ब-दन्ता-जिन-रूप्य-सुवर्ष-पञ्चास्यारवतराः”—(इत्याचार्याः) ।

नेति कीदृशः—“कर्मसाजिनाश्चपञ्चवर्जाः शङ्खवस्त्रमणि-मुक्ताश्चसुवर्षपञ्चाश प्रभूततरा दक्षिणापथे । दक्षिणापथेषुपि वज्र-चर्मिस्सारपथः प्रसिद्धमतिरस्य-आवासो वा वरिष्कपथः श्रेयान् । प्रभूतविषयो वा पञ्चपथः । तेन पूर्वः पश्चिमश्च वरिष्कपथो आख्यातः ।”—Bk. VII, कर्मवर्णिः, p. 298.

² Megasthenes, Bk. IV, Fragment lvi.

the Indus valley, and enabling the power of Chandra Gupta to be felt even in the regions of the North-Western frontiers which had been newly wrested from the hands of Seleucus Nikator.

But roads and trade routes¹ had a political importance besides an economic. To have control over them meant over-reaching the enemy. They were the means of transport of troops, messengers, envoys, as well as weapons, armour, chariots, pack-animals, etc.

Roads and trade routes were of various kinds, with various designations. They were classified (1) according as they were used by beasts of burden, men on foot or in conveyances, and (2) according to the destinations they led to. Thus, the राजमार्ग² (4 dandas or 32 feet wide) was the king's highway. It owed its

¹ वरिष्कपथः परातिसम्मानस्य योनिः ; वरिष्कपथेन हि दृष्ट-
मृदुपुत्रधातिनयनं मन्नावरस्यानवाहनक्रयस्य क्रियते । प्रवेशो
निर्वाचनं च ।—Bk. VII, चीनमन्त्रिपूरुषस्य, p. 805 ; सप्रतिविहित
यानवाहनपुत्रपरिवापः प्रतिष्ठेत, etc.—Bk. I, दूतप्रविधिः,
p. 80.

² निर्वाहोऽभिधाने च राजमार्गसुभवतः कृतारथं दृष्टिभिरपास-
मन्नावरस्यप्रजितस्य च नयेत् । न पुत्रसम्पादनवशादेत ।—Bk. I,
आत्मरहितकम्, p. 45 ; यवः प्राचीना राजमार्गाजय उदीचीना
इति वास्तुविमानः ।—Bk. II, दुर्गेनिवेशः, p. 54.

name evidently to the fact that the king used it on solemn occasions, when it was cleared of crowds and guarded by soldiers with drawn swords. There used to be six such roads in a city, three running north and south and three east and west. राजा was the broad road, 4 daṇḍas or 32 feet wide, along which chariots could run with ease. There is also mention of a राजपथ, apparently for smaller chariots, as it was only 5 aratnis or 10 feet wide. The पथपथ, having a width of 4 aratnis or 8 feet, was the road for cattle in general, while there were the महापथपथ for the larger animals, and the सुहपथपथ for the smaller ones, having a width of 2 aratnis or 4 feet.¹ There were routes called अरोहपथ (*lit.*, for asses and camels). They were so made that they could be used whatever the season or the nature of the soil through which they passed. Besides the aforesaid roads, there was also distinguished a चक्रपथ (cart-track) which admitted of a larger volume of traffic than the पादपथ, and the मनुष्यपथ

¹ It should be noted that these roads took their names from the principal uses for which they were meant. It must not be thought that a road for the purpose which its name implies was not put to any other use for which it was fit.

(2 aratnis or 4 feet wide) meant for pedestrians only. The अंसपथ was a narrow road of the latter class.¹ Of these roads and routes some have been singled out in the Arthashastra as trade routes proper (वचिदपथ). These are the अक्रपथ, पादपथ, अंसपथ and शरोद्वपथ. The reason of this distinction seems to be that the trade routes were usually of very great length and passed through a variety of soils and climes.

As has been already mentioned, there was also a class of roads that were designated according to their destinations. The राद्वपथ (4 dandas or 32 feet wide) was the road leading to the districts. The road leading to pastures was known as विनीतपथ, and was of the same breadth. The approaches to the *forts in the centre of 400 and 800 villages* were known respectively as द्रोणसुवपथ and खानीपथ, and were of equal breadth with the preceding.² The सखीनीपथ led to the fields

¹ दुर्गनिवेशः—Bk. II; विनीतसेवपथविंसा—Bk. III; and कर्मासन्धि—Bk. VII; तथापि अक्रपादपथसोअक्रपथो विपुला-
रक्षणाच्छेवान् देवकाससम्भावनी वा शरोद्वपथः आभ्याम् अंसपथो
वास्तान्तः—Bk. VII, कर्मासन्धिः ।

² अद्वयतथाभ्यामथे खानीथं, अतुद्वयतथाभ्या द्रोणसुवं, द्वयत-
थाभ्या शार्वाटिकं, द्वयपानीसंपथेव सङ्गृह्यं आपथेत् ।

—Bk. II, जनपदनिवेशः ।

under cultivation (बीज=seed or grain). The road leading to a military station was called the ब्रह्मपथ. The श्मशानपथ, as the name indicates, led to the cremation-grounds, while the ग्रामपथ was a thoroughfare which led to and through a village. The above four classes of roads were all 8 danḍas or 64 feet wide. The paths to forests were known as वनपथ (4 danḍas or 32 feet wide), and those leading to elephant forests were called वलिचिपथ (2 danḍas or 16 feet wide). The roads leading to or passing over elevated and difficult places like embankments were designated as वेतुपथ (4 danḍas or 32 feet wide).¹

Besides the above classes, there are mentioned a few other roads peculiar to forts² :—

(i) रथचक्रोपचार, *i.e.* roads for chariots, paved with planks cut from the trunks of palms, or with broad and thick slabs of stones. (ii) प्रतीची, which was a broad passage between two towers (चक्रोपचार). (iii) देवपथ, which was the passage leading to a temple. (iv) Paths which were as broad as a danḍa (8 feet) or two and were called चार्वा.

¹ दुर्गनिवेशः—Bk. II.

² दुर्गविधानम्—Bk. II.

Among other minor roads may be mentioned the **सूत्र**, a defile or small path admitting passage for a single man.¹ **उपाध** is a small passage through fields,² etc., and **विहिता**³ a road in the city on which the workshop for the State goldsmith was built.

The free flow of traffic along the established roads and trade routes was naturally one of the cares of the State, and all interference with it was punishable. Suitable fines were imposed for blocking passage, which varied with the importance of the roads.⁴ The fines for blocking or digging some of the roads mentioned above are thus laid down in the *Arthasâstra* : for **सुदृढपथ** and **सदृढपथ**, 12 panas ; for **महापथ**, 24 panas ; for **सखिषेपथ**, 54 panas ; for **सेतुपथ** and **वज्रपथ**, 600 panas ; for **साम्राज्यपथ** and **प्राज्यपथ**, 200 panas ; for **सोपपथ**, 500 panas ; for **सानीयपथ**, **राज्यपथ** and **विनीतपथ**, 1000 panas ; for digging the roads too deep, four times the above fines were inflicted.

We now proceed to give an account of the

¹ **सूत्रादिरसप्रविशयः**, **वीवधासारप्रसारवधश्च**—Bk. XII, p. 388.

² **वासुविज्ञयः**—Bk. III, p. 169.

³ **सखिषेपथं सुवर्षाधश्च**—Bk. II, p. 85.

⁴ **विनीतपथविहिता**—Bk. III, p. 171.

various types of vehicles, conveyances and other means of land carriage which were then in use. First come *chariots*, the construction of which was placed under the supervision of the superintendent of chariots (रथाध्यक्ष), who had to see that the chariots built corresponded with the various sizes and types in vogue; for there are mentioned no less than seven different sizes of chariots with a normal height of 10 purushas, *i.e.* 10 feet, but with a width ranging from 6 to 12 feet. There are also mentioned six varieties of chariots for different purposes. Thus the देवराज was the chariot for the idols, the पुष्यराज was the festal chariot, the संपातिक war-chariot, the पारिवातिक that used ordinarily for travelling. There was another class of war-chariots called the परपुराणिवातिक for use in expeditions. Lastly, there was the वेनविक or the chariot used in the period of training.¹

Among *minor vehicles*² we have the लघुवाहनम्, a small cart; the मीलितम्, a cart of medium size drawn by bulls; and the बकट or big cart.

¹ रथाध्यक्षः—Bk. II.

² लघुवाहनम्, मीलितम्, सप्त बकटम्—Bk. II, नावध्यक्षः, p. 127.

The carts were in very general use, and a brisk trade in them was carried on to meet the demand.¹

The chariots, carts² and other vehicles were usually drawn by camels, bulls or horses. The cart-driver was called चक्रचर.³

Lastly, the शिबिका⁴ or palanquin was also a means of conveyance, पीठिका being another variety of the same.

As regards the king's conveyance, great precautions were taken to ensure his personal safety when he rode a horse, etc., or was carried in a chariot or other vehicle. Hereditary grooms and drivers were generally appointed, and stringent punishments meted out to those who stole or caused hurt to royal

¹ चान्दरसकोटपञ्चाः शकटव्यवहारिणश्च विंशत्कराः—Bk. V, कोशानिसंहरणम्, p. 241.

² शवाश-रथोद्धार्यां च शकः—Bk. VII, शीतशक्तिपूरणम् । सुगवाहनशकटवहा इवमाः—Bk. II, मोक्षचः । कुर्वीतवाशवा-द्योर्गं रथेष्वप्यथयो नृपः—Bk. X, बुद्धभूमयः, पत्यचरव्यवहारिकर्णशि च, p. 369.

³ चक्रचरार्थां वा शकट-वाटे-रथमश्नेत्—Bk. VII, सन्धिकर्ण, सन्धिकोशच, p. 315.

⁴ शकभुङ्गारव्यजमशिविकापीठिकारथेषु च विशेषार्थम्—Bk. II, शिविकाश्वचः, p. 123.

horses and elephants, and damage to royal carriages.¹

There were rules for the driving of vehicles to ensure the security of the passers-by. I need not, however, enter into these details.² Cart-stealing was severely punished.³ Special⁴ care was taken for repairing the roads, and favour was shown to the labourers by exempting them from taxes.

I conclude this account of land routes and conveyances by a reference to the facilities for travelling that were offered by the State. The supply of water and shade was one of the concerns of Government. Trees were planted along the roads, and water-storages were set up, ministering to the comfort of passers-by. There was also provision made by hotel-

¹ मीळपुरवाधिष्ठितं वाजवाहनमारोहेत्—Bk. I, चाकरचित्त-
कम् ; (पश्चि) राजहस्त्यचरवागां चिंसकान् खेमान्वा मूखानारो-
हयेयुः—Bk. IV, मूहचिवच दक्षकल्पः, p. 227.

² Vide Bk. IV, अतिचारदक्षः ।

³ चक्रयुक्तं नावं सुद्रुपयुं व्यापहरत एकपादवधः चित्रतो वा
दक्षः—Bk. IV, एकानवधनिष्कवः, p. 225.

⁴ शोधयेत् पशुसङ्घिषी चीपमानं वधिक्पयं—Bk. II, जनपद-
निवेशः, p. 49; मध्यमवरं वा दुर्गेषु कर्मवधिक्पयशुभनिवेश-
कनिद्रवद्विबनकर्मोपकारिचं प्रत्यन्मस्यप्रमाणं वा न वाचेत्—
Bk. V, क्रीडानिसंहरत्तम्, p. 240.

keepers for the supply of food and resting-place to travellers.¹ These facilities anticipated those of Asoka as set forth in his Rock Edict II.

§ 2.—WATERWAYS AND SHIPS AND BOATS.

From the above it appears that the vast territories over which Chandra Gupta held sway were interconnected by a system of communications, which was one of the chief means of welding them together into one mighty empire governed from its centre at Pāṭaliputra. The means of communication thus established had, as I have already said, not merely a political significance; they helped to create and carry a large volume of inland trade which was equally instrumental in uniting the different parts of the empire in ties of common material interests.

The system of communications, however,

¹ तुलसीप्रभुं चलीप्रापायिक-कथावकाशभोजनदाहनिः स्व-सर्पयेत्—Bk. IV, वाक्यकर्मोद्घोषः, p. 219.

सदीर्घं चाहार्थीर्घं वा सेतुं बन्धयेत्। अन्येषां वा बध्ना भूमिगार्ग-इषीपकरवानुपचं कुर्वीत् पुण्ड्रानारामार्हा च सभूय सेतुबन्धाद्प्रकासतः कर्षकरवलीवर्दीः कर्षकुर्वुः—Bk. II, जन-पद्मिवेदः, p. 47; पुण्ड्रसुवाटपण्ड्रकोदारसूत्रवापाखेतुः—Bk. II, समाहर्तुं सतुद्वयप्रजापनम्, p. 60.

could not be complete without the means of water-carriage, which in India, pre-eminently the land of rivers, were imperatively necessary. That these were fairly developed is quite evident from the Arthaśāstra; in fact, all matters relating to navigation, whether inland or oceanic, were dealt with by a separate admiralty department managed by various officers.

There were several classes of water routes: first, the ordinary river routes and the artificial waterways or canals (कुला) which were greatly resorted to by traders on account of the undoubted cheapness of water-carriage. Kauṭilya, however, shows his preference¹ for land routes over water routes on account of the lesser risks involved in the former. Secondly, there were the routes for coastal traffic (समुद्रपथ)

¹ एतेन वदित् पथोवाह्यातः । तथापि—“वारिकुलपथयोर्वा-
रिपथः चेवान् चल्पवयवायामः प्रभूतपथोद्भवः” इत्याचार्योः ।
नेति कौटिल्यः—“संभ्रमतिरसार्वकालिकः प्रकृतमन्वयानिनिष्प-
तिकारश्च वारिपथः ; विपरीतकुलपथः । वारिपथे तु कुल-
संभ्रानपथयोः कुलपथः पथपट्टववाङ्गलास्त्रेयाद्द्वीपयो वा सात-
त्याद्विषयावाधनात्” ।—Bk. VII, कर्मसन्धिः, p. 298.

कौटिल्यः—“वारिकुलपथभोजयोरनित्यो वारिपथभोगो, नि-
त्यकुलपथभोज इति” ।—Bk. VII, चनवसितसन्धिः, p. 294.

carrying on inter-portal communication. These were naturally more exposed to dangers than either the river routes or the land routes. Lastly, there were ocean routes (संवाहनपथ) carrying on the intercourse of India with foreign countries across the sea. The existence of definite ocean routes, clearly marked out, no doubt implies a high degree of development of the art of navigation.

The natural risks of water-carriage were, however, overcome by the efficiency of the means of transport that were in use. Ships and boats were built of various descriptions suiting the purposes of both inland and marine navigation. In the Arthasâstra mention is made of the following kinds of ships and boats:—

(i) संवातः नावः, *i.e.* ocean-going vessels. These ships had to pay tolls (शुल्क) at the harbours (शेख) at which they touched.¹ Amarakosha defines a संवाहिक as a merchantman (पोतवहिक).

(ii) प्रवहवः This is another name for sea-going vessels, or more properly merchantmen, for it is thus defined in the commentary on

¹ संवातीर्भावः शेखानुगतः शुल्कं वाचेत् ।

—Bk. II, नावध्वजः, p. 126.

उत्तराखण्डसूचिका, p. 246: वाहुद्रिकाः वायादिभः मद्याहवुद्रं प्रवहवैश्वरणि, i.e. "sea-going merchants cross the main in प्रवहव."¹

(iii) महुद्रुक्तायादिभः नावः These were the boats used for pearl-fishing in various parts of the ocean. They were generally the property of Government, but were also let out to private individuals on payment of the necessary fee (वीहाडक). But pearl-fishers were also allowed to carry on their business in their own boats (सनावः).²

(iv) मद्यानावः These were big vessels for use in those large rivers (मद्यानदीषु) which could not be forded even in the dry seasons and were navigable throughout the year.³

(v) The royal barge was another type of boat, manned by trustworthy sailors (आप्तना-विकाचिहितः जीः). It had to be tagged on to another boat, evidently for the safety of the king. The king never used a vessel that had

¹ प्रवहवैश्वरिणिसिद्धिःकोऽस्यात्: सर्वात्मनात्मानावाहयेत् ।

—Bk. I, उपधाभि-इत्रीयाशीवन्नामसमात्यानाम्, p. 17.

² महुद्रुक्तायादिषु वीहाडकान् दस्यु, सनीमिर्वा मरेषुः ।

—(नावध्वजः) ।

³ मद्यानावो वेमकापीसामायांषु मद्यानदीषुप्रवीजयेत् ।—*Ibid.*

once been weather-beaten, and, as a further precautionary measure, soldiers were stationed on the bank or shore when he boarded a vessel.¹

(vi) **शुक्रकाः नावः** These were small boats specially meant for use in small and shallow rivers (शुक्रिकाद्यु) that overflowed in the rains.²

(vii) **सत्तरवाणि** Besides the Government ferry-boats, there were also ferry-boats belonging to private persons. These were allowed to cross the rivers at all times and places.³

(viii) **द्विचिकाः** These were the pirate ships and boats. The admiralty regulation was that they should be pursued and destroyed whenever they were found. The same regulation applied to the ships and boats of an enemy's country when they crossed its limits (अग्निविविधयातिनाः) and also to vessels violating harbour rules (पञ्चपत्तनचारिचोपधातिकाः).⁴

¹ नावं आप्तनाविकाधिष्ठितानामन्यनीप्रतिवर्द्धां (आरोहेत्) ; वातवेगवर्द्धां च नोपेयात् । उद्दकाको सैन्यमासीत् ।

—Bk. I, आत्तरचितकम्, p. 44.

² शुक्रकाः (नावः) शुक्रिकाद्यु वर्षायाविशीषु ।—(नावध्वजः) ।

³ *Ibid.*

⁴ द्विचिका निर्धेतयेत् । अग्निविविधयातिनाः पञ्चपत्तनचारिचोपधातिकाश्च—(नावध्वजः) ।

A reference has now to be made to the crew for manning ships and boats. The captain of a ship was called the **नावक**, and the steersman the **निवासक**. There were also the sailors, with sickles and ropes, known as **दावरशिपायकाः**. Lastly, there was a staff of sailors whose duty it was to bale out water (**उत्सेचकाः**).¹

Besides the regular ships and boats, there were devised various other means of water-carriage. These were (a) **काष्ठसङ्घान**—pieces of timber tied together, serving the purposes of a boat; (b) **वेदुसङ्घान**—a boat made of bamboos tied together; (c) **बड्ढावु**—a vessel made of the bottle-gourd; (d) **चर्मकरण**—a basket covered with skin; (e) **हस्ति**—a leather bag that could be floated and used as a boat; (f) **हव**—canoe; (g) **मच्छिका**—a floating device made of the leather of the rhinoceros; (h) **वेचिका**—a float of reeds, etc., woven together.²

Other means³ of crossing water were the bridges of various kinds. Besides the ordinary

¹ *Vide* नावकः. Cf. the list of crew as given by **अमरकोषः**—“**कर्मचारकुलाधिकः निवासकाः धीतवाचाः ।**”

² **वहिन्यामसङ्घामवे तु वन्धीकाष्ठवेदुसङ्घानिः बड्ढावुचर्मकरणहस्तिहवमच्छिकावेचिकाभिचीदकानि नारवेत्**—Bk. X, **कन्या-**

bridges (सेतुबन्ध) there were also the bridges of boats as well as the bridges formed by elephants standing in a row.

In the chapter नावध्वजः there are a few rules relating to the duties of the नावध्वज (the superintendent of the admiralty department), of the सन्धध्वज (the superintendent of ocean-mines) and of the पत्तनाध्वज (the superintendent of ports). There are also mentioned the regulations as to the collection of taxes and ferry charges (नरदेव), repair of ships and boats, time and place for crossing rivers, entrance of foreign merchants into the country, arrest of suspected persons, and concessions made to some classes of persons as regards crossing and ferry fees, e.g. children, old men, etc.

वारप्रवाहम्, p. 868; वर्षारामनूपमानाः पूरवेद्यामुत्सव्य वसेयुः । काष्ठवेद्युनाव्यापयन्तीयुः—Bk. IV, उपनिषातप्रतीकारः, p. 206.

उत्सवानमन्त्रावुद्दिष्टवन्निष्ठावेष्टिकाभिस्कारयेयुः । अनभिस्-
रतां द्वादशपथो दृष्टः, अन्यत्र सवहीनेभ्यः ।—Bk. IV, उपनि-
षातप्रतीकारः, p. 206.

नदीदुर्गं हि वृद्धिस्तत्रसङ्गमसेतुबन्धनीमित्स्याध्वनित्यमाभीर्य-
मपवाद्युदकं च—Bk. VII, भूमिसन्धिः, p. 292.

शिविरमार्गसेतुपत्तीर्यशोधनकर्त्तव्यन्नायुधावरक्षोपकरक्षयास-
वन्दनमाशोधनाच्च प्रहरदावरक्षप्रतिविद्यापनयनमिति विद्वि-
कर्मोद्दि—Bk. X, पत्यवरवृद्धिकर्मोद्दिष्टः, p. 869.

Besides these, there were a few other rules regarding deposits in ships, the rate of interest for money lent or borrowed by sea traders (सासुद्राः) and the punishment for stealing boats.¹

It is apparent from the above that intercourse was established in that ancient time between the empire of Chandra Gupta and very distant places. That foreign merchants used to come to his empire and that commerce was carried on with distant countries are evident from references made to them in several passages under the names of पारविविकः,² सासुद्राः,³ सार्धवानवाचानि,⁴ and also by the use of such expressions as “देवकाजानरितानां तु पञ्चानां,”⁵

¹ नावनिमित्तार्थां दुषितायां खड्गपङ्को गोपनिधिमभ्याभवेत्—Bk. III, औपनिधिकम्, p. 177; विंशतिपञ्चा सासुद्रायां । ततः परं कर्तुः कारयितुश्च पूर्वस्मात्सदृशः—Bk. III, ऋषादानम्, p. 174; नाविकसार्धवाशेभ्यश्च परिहारमावतिष्ठनं दद्यात् । अजमिद्योगसार्धेभ्यामनूनामन्यत्र सम्भोपकारिभ्यः—Bk. II, पञ्चाध्यायः, p. 98.

अङ्गयुक्तां नावं क्षुद्रपङ्कं वाऽपहरत रेकपादवधः विंशतो वा दण्डः—Bk. IV, एकाङ्गवधनिष्पत्तयः, p. 225.

² Vide नावध्यायः ।

³ Bk. III, ऋषादानम् ।

⁴ Bk. I, अथवद्वहत्तमवधे च इतिः ।

⁵ Bk. IV, वीदेहक-रचयम्; see also पञ्चाध्यायः—Bk. II; कर्म-सन्धिः—Bk. VII, etc.

etc. Lastly, in the chapter entitled **बोधप्रवेश-
रत्नपरीक्षा** in Book II, among other things it is
mentioned that **काञ्चनक**, a kind of sandal, came
from **सर्वभूमि**, *i.e.* Burma; **चीनभूमिकाः चीनपद्माः**,
fabrics of Chinese manufacture, came from
that distant country; and gems of various
kinds, as well as **अमर** (the fragrant Aloe-wood)
of several sorts, came from Ceylon (**पारसमुद्र**).¹
There are mentioned many other names
of distant countries the products of which
were brought into the empire by the means
of intercourse that were established, but
those already quoted are sufficient for our
purpose.

¹ Mr. N. L. Dey has very rightly restored the word *Palesi-
mundu* of the *Periplus of the Erythraean Sea* to its proper form
as *Párasamudra* (**पारसमुद्र**) in the second edition of his *Geo-
graphical Dictionary of Ancient and Mediæval India*, the
manuscript of which he has kindly allowed me to consult. His
restoration of the word is confirmed by Bhaṭṭasvāmi's Com-
mentary, which says that the fragrant Aloe-wood, called *Párasá-
mudraka* after the place where it grows, is obtained in *Sinhala*
(Ceylon).

CHAPTER VI.

MINOR WORKS OF PUBLIC UTILITY.

IN the previous chapters has been described the field of activity covered by some of the major works of public utility. In the present, an account will be given of some of the minor measures that were adopted, and the institutions that were established, for the promotion of the welfare of the people in certain special directions. These, roughly speaking, were connected with the relief and alleviation of sickness, poverty and distress, as well as with the patronage and encouragement of merit.

MEDICAL AIDS, SANITATION, ETC.

It is well known that in ancient India, as far back as the age of Buddha, much progress was made in medicine and surgery, which were fast being applied to the relief of human

suffering. "According to the Indian tradition preserved in the Buddhist Jātakas or Folklore, there existed in India in the age of Buddha two great universities or seats of learning, in which 'all sciences,' including medicine, were taught by 'professors of world-wide renown.' These two universities were Kâsî or Benares in the east, and the still more famous Takshasilâ or Taxila (on the Jhelam river) in the west. In the latter university in the time of Buddha or shortly before it, the leading professor of medicine was Âtreya. He, accordingly, should have flourished at some time in the sixth century B.C. As one of the names of Suśruta's teacher is Kâśtrâja, which literally means King of Kâśî, he may not unreasonably have referred to the University of Kâśî or Benares."¹ Jīvaka, the famous physician who was contemporaneous with Buddha, is stated to have studied medicine in the Taxila university under Âtreya.² The Vinaya Piṭakas also give us some information on this point.³ "Rules for preparing various kinds of medica-

¹ Hoernle's *Studies in the Medicine of Ancient India*, pp. 7, 8.

² Rockhill's *Life of Buddha*, p. 65.

³ Vinaya Piṭakas: Mahāvagga VI, 1-15 and 17-21.

ments, as well as medical and surgical operations," says Prof. Kern, "are prescribed in the Vinaya, so that we get some notion of the condition of medical science in the period when that part of the canon was composed."¹ From these evidences, which are sufficient for the present purpose, we get an idea of the state of Indian medical science as far back as the time of Buddha, or even before it, and the advancement it attained in medicine and surgery. The degree of progress achieved in Chandra Gupta's time will be evident from the measures adopted by his Government to secure the health of his people. We learn from Megasthenes² that of the six bodies that were in charge of the city, one had "to attend to the entertainment of foreigners. . . . *They took care of them when they were sick, and if they died buried them.*" Thus the care and treatment of the sick foreigners formed one of the duties of Government. This shows that physicians, with medicines and appliances, had to be kept in readiness to meet the emergencies. Arrian, moreover, refers to an

¹ Kern's *Manual of Indian Buddhism*, p. 85.

² Megasthenes, Bk. III, Fragment xxxiv.

interesting incident which reflects no small credit on the Indian physicians of the day. Alexander had in his train several proficient Greek physicians, but they confessed their inability to deal with the cases of snake-bite very common in the Punjab. Alexander was obliged to consult the Indian *Vaidyas*, who successfully treated these cases. The Macedonian king was so struck with their skill that, according to Nearchos, he employed some good *Vaidyas*, and ordered his followers to consult them in cases of snake-bite and other dangerous ailments.

That there were hospitals with store-rooms (निवन्धानार) containing medicines in such large quantities as could not be exhausted by years of use, is evident from the passages in the Arthaśāstra quoted below.¹ To the old store fresh supplies were constantly added.

In the Arthaśāstra there are references to four classes of medical experts, viz. निवन्धः or चिकित्सकाः, *i.e.* ordinary physicians; जाडशीविदः,

¹ उत्तरपश्चिमं भागं पञ्चनिवन्धस्यम् ।—Bk. II, दुर्जनविदः, p. 55; सर्पक्षिद्युष्याचारस्यविदः . . . निवन्धान् चनेकवर्षो-पभोगस्यान् कारयेत् । नवेनानवं शोधयेत्—*Ibid.*, p. 56. See also p. 44, Bk. I, आहारचितकम् ।

i.e. those who could readily detect poison ;
 गर्भशाधिचंदाः or अग्निकाचिकित्सकाः, *i.e.* midwives ; and
 army surgeons and nurses.¹

The army surgeons with surgical instruments (स्रक्) and appliances (यन्त्र), remedial oils (चन्द्रेण) and bandages (बन्ध), and nurses with appropriate food and beverage, accompanied the army, and encouraged the soldiers.² For the treatment of the diseases of animals, there were the veterinary surgeons referred to in the previous chapters on the subject of live stock.

Several steps were taken for the plantation and growth of medicinal plants and herbs. Portions of fields cultivated directly under Government supervision were set apart and used for this purpose. These herbs were also grown in pots.³

Again, in the royal households, all kinds of

¹ शिष्यः and आहारीविद्.—Bk. I, आहारचिकित्सकम्, p. 48 ;
 गर्भशाधिचंदाः.—Bk. I, निदानप्रश्निः, p. 41 ; अग्निकाचि-
 कित्सकाः.—Bk. II, मानकेप्रश्निः, p. 146.

² चिकित्सकाः स्रक्यन्त्रान्द्रोहयन्त्राः शिवश्यामपानचिन्-
 पुत्रशास्त्रानुसर्षणीया इत्यनन्तिहेतुः ।—Bk. X, दूरयुद्धविकल्पाः,
 etc., p. 867.

³ Bk. II, वीनाश्वयः, p. 117.

medicines useful in midwifery were kept, and the well-known medicinal herbs were grown in pots. Specified plants were also planted in the compounds of houses to ward off snakes. Cats, peacocks, mongooses and spotted deer were also kept there for the purpose. The shriek of birds such as mainâ, parrot, etc., which cry out in the vicinity of snake poison, was utilized. The following birds were also kept for their sensitiveness to poison, viz., the heron that swooned, the cuckoo that fell dead, and the partridge that reddened the eyes at the smell of poison.¹

The State controlled and regulated medical practice in the land.² Laws were enacted to ensure that medical practitioners exercised due caution in treatment of patients. Every case of dangerous disease had to be reported to Government, failing which, the physician was fined. There was a penalty attaching to a proved case of carelessness on the part of a physician causing the death of a patient, while the aggravation of disease owing to his negligence was treated very much like a case of

¹ Bk. I, निशान्तप्रतिषिः ।

² Bk. IV, कायकरचरन् ।

assault or violence.¹ Thus the physicians were cautioned against "gathering experience" at the cost of the lives of hundreds of patients.

Measures were also taken for prevention of diseases. Thus, adulteration of all kinds was punished, *e.g.* adulteration of grains, oils, alkalies, salts, scents and medicines.² The health of the people in cities or crowded places was secured by sanitary measures. Throwing dirt, or causing mire or water to collect in roads and highways was punishable. Committing nuisance near temples, royal buildings and places of pilgrimage, or in reservoirs of water, was penalized, but exceptions were made when this was due to disease or effect of medicine. Throwing inside the city the carcasses of animals, or human corpses, was also visited with fines. Carrying dead bodies through gates or along paths not meant for the purpose, as well as the interring or cremation

¹ Cf. S. B. E., Vishṇu, v, 175-177; Yājñavalkya, II, 242; and Manu, IX, 284—"All physicians who treat their patients wrongly shall pay a fine: in the case of animals, the first or lowest, and in the case of human beings the middlemost amercement." Nārada adds: "But this refers to cases when death is not the result of the wrong treatment; for if that is the case, the punishment is greater."

² Bk. IV, विद्वेषकरचषद् ।

of dead bodies beyond the limits of the prescribed burial-places and crematories, was also a violation of the sanitary regulations.¹

Remedial measures, medical as well as religious, were adopted to ward off pestilences. In times of epidemic, physicians had to be busy distributing medicines, and ascetics and priests with their auspicious and purificatory ceremonials.²

The precautions taken for the health of the king were as follows:—Medical experts were appointed to detect poison. The medicines that were served out to the king were in the first instance proved as to their purity and then tasted by the physician, the decoctioner (पाचक) and the purveyor together.³

Post-mortem examination (आयुनृतकपरीक्षा).—It is noteworthy that there was arrangement in those days for post-mortem examination.⁴ For this purpose the corpse was smeared with oil to prevent putrefaction. All cases of violent death caused, for instance, by suffoca-

¹ Bk. II, नागरकप्रविधिः ।

² Bk. IV, उपनिषातप्रतीकारः ।

³ Bk. I, आहारविनयम् ।

⁴ Bk. IV, आयुनृतकपरीक्षा ।

tion, hanging, drowning, etc., or by poisoning, were at once brought to the morgue, and the medical officers in charge had to find out as far as possible the exact cause of death from an examination of the symptoms, several of which are enumerated in the *Arthasāstra*. The whole affair was subjected to a careful scrutiny, and if foul play was suspected, evidence was taken and the matter left to be disposed of in the law court.

Before we leave this subject it should be noted that the University of Takshasilā, where Pāṇini and Jīvaka were taught, must have continued to exist in its pristine glory at the time of Chandra Gupta, teaching the medical science which was included in its curriculum as before. Arrian describes Takshasilā as “a large and wealthy city and the most populous between the Indus and the Hydaspes.” Pliny and Strabo also testify to its vast dimension and populousness. Its high repute as a wealthy city continued for many years after Alexander’s invasion,¹ and its importance may be deduced from the fact that it continued to be the

¹ Cunningham’s *Archæological Survey Report*, vol. ii, pp. 112, 118.

capital of the Punjab and residence of the viceroys under the early Maurya kings. Asoka lived here as viceroy during the lifetime of his father. These circumstances, as also the fact that we do not hear of any other university in Western India at the time of Chandra Gupta, confirm the aforesaid view. Though it is not distinctly stated in the *Atthakathâ*, as quoted by Turnour in his *Mahâwanso*,¹ that Kauṭilya, the minister of Chandra Gupta, was taught in the University of Takshaṣilâ, yet, considering that he was an inhabitant of that town and that he achieved the knowledge of the three *Vedas*, could rehearse the *Mantras* and wrote several treatises on diverse subjects, we cannot resist the inference that he must have availed himself of the advantages which the university of his own town, so famous for its teaching in all the branches of learning, could afford.

INSURANCE AGAINST FAMINE, FLOOD AND FIRE.

We shall now turn to the measures taken for protecting the people against the ravages of famine, flood, fire, etc.

¹ Introduction, p. xxxix.

As a general preventive against famine and other such calamities, it was laid down that in the Government store-house only half of the garnered articles should be used and the other half reserved.¹

The king had also special duties to perform towards his people during famine. In the first place, he had to provide them with seeds to secure a good harvest in future. When the famine had already overtaken the people, he started relief work (i) by *दुर्गमकार्य*, *i.e.* works given to the famine-stricken for wage-earning, (ii) by free distribution of alms from the store-house referred to above, (iii) by the abandonment of his country to some other king (*देशनिक्षेप*), (iv) by taking help from allies, (v) by making the rich contribute to the famine fund, (vi) by temporary emigration with his subjects to a different kingdom with abundance of crops, (vii) by emigrating to the sea-shores or to the banks of rivers or lakes where he founded a new settlement and employed his subjects in growing grains, vegetables, etc., as

¹ Bk. II, *कीर्तनाराधनः* ।

well as in hunting and fishing on a large scale.¹

As a precautionary measure against floods during the rainy season, the people were made to remove from the banks of rivers, etc., in due time. Those who possessed or could procure canoes and other means of safety and escape were enjoined, under the penalty of fines, to give every possible help to persons falling victims to floods in spite of all precautions. Coupled with the above means was the performance of religious and other ceremonials to propitiate the spirits and the gods.²

Measures for the extermination of pests were also taken by Government. These "pests" generally included rats, locusts, injurious birds and insects, and tigers. To destroy rats, cats and mungooses were let loose; some varieties of poison were also used for the purpose. To kill tigers, several kinds of

¹ दुर्मिषे राखा पीकमत्तोपम्यहं क्खत्ताऽनुपचं कुर्वीत् । दुर्मत-
कर्षं वा मत्तानुपयेषु मत्तसंविभारं वा देवनिषेपं वा । सिपादि
वा अपात्रयेत् । कर्मणं वसनं वा कुर्वीत् । निष्यन्नसख्यमन्वविषयं
वा सजनपदो वायात् । समुद्रपरसडाक्रान्तिं वा संनयेत् । घान्-
द्राकमूलफलजावापान् सेतुषु कुर्वीत् । मृतपशुव्याकमत्स्यारक्षान्
वा ।—Bk. IV, उपनिषातप्रतीकारः, p. 207.

² Bk. IV., उपनिषातप्रतीकारः ।

poison were in use ; sometimes hunters were employed, and several methods of entrapping were also resorted to.¹

There were various regulations to protect person and property from fire. The danger from fire seems to have been very common, considering the material of which the buildings of the period were mostly constructed, viz. wood instead of stone.² Megasthenes informs us that “ such cities as were situated on the banks of rivers or on the sea-coast were built of wood instead of brick, being meant to last only for a time, so destructive were the heavy rains which poured down ; and the rivers also, when they overflowed their banks, inundated the plains ; while those cities which stood on commanding situations and lofty eminences were built of brick and mud.”³ It is also known, on

¹ Bk. IV, अश्वजिवातप्रतीकारः ।

² V. Smith's *Hist. of Fine Art*, p. 18: “ Abundant evidence establishes the fact that Indian architects before the time of Asoka built their superstructures chiefly of timber, using brick almost exclusively for foundations and plinths. No deficiency in dignity or grandeur was involved by the use of the more perishable material.” The present excavations at Pāṭaliputra are leading to the discovery of many wooden structures, e.g. pillars, platforms, etc. We are anxiously awaiting a corroboration of our views on this point by such findings.

³ Megasthenes, Bk. II, Fragment xxvi.

the authority of the same Greek ambassador, that Pāṭaliputra, the capital, was surrounded by "a wooden wall pierced with loopholes for the discharge of arrows."¹ Wood seems to have been very extensively used in those days for building and other purposes, and therefore several precautions were taken and several rules laid down governing the use of fire.

During summer, villagers had to do their cooking in the open air, if they were not already equipped with what was called the *ten remedial instruments* (दशसूत्रीसंपन्नः).² These were (i) five water-pots (पञ्चवचः); (ii) कुण्ड, a water-vessel of that name; (iii) झोली, which, according to Bhaṭṭasvāmī, was a water-tub made of wood and kept at the door of a house; (iv) लज्जेली, a ladder; (v) परशु, an axe to cut beams, etc.; (vi) झरु, a winnowing-basket to blow off smoke; (vii) चहुन, a hook to pull down the burning pieces of wood; (viii) कच, ropes, etc.; (ix) पचली, a basket for removing articles from the store-room, etc.; and (x) रत्न, a leather bag for the same purpose as the preceding.

¹ Bk. II, Fragment xxv.

² Bk. IV, उपनिषादप्रतीकारः ।

In the city, every householder had to provide himself with the ten remedial instruments. During summer the kindling of fire was prohibited during the second and third quarters of the day. All men were enjoined, under the penalty of fines, to run to give help, in case fire broke out in any house. Thousands of vessels filled with water had to be kept in rows not only in the big roads but also at the crossings of roads and in front of royal buildings. The masters of the houses had to sleep at night in a place near the main doors of their premises, so that they might be easily accessible and come out of their houses to give help without delay. Thatched roofs made of straw and other materials that readily take fire, were not allowed within the city. Those who worked by fire, *e.g.* blacksmiths, had to live in a particular quarter of the city. Persons wilfully setting fire to a house were severely dealt with. If it was through negligence, only fines were imposed.¹

¹ अपिप्रतीकारं च पीपे मध्यमयोरङ्कशतुर्भागवोः अष्टभागोऽपि-
द्वयः । बहिरभिन्नयथं वा कुर्वुः । पादः पञ्चदशतीर्णा कुम्भोऽपी-
निनेषीपरमूर्ध्निपुत्र-कचपञ्चदशतीर्णा च अकरथे । दशकठ-
कुम्भात्पञ्चयेत । अपिजीविन एकस्मानं वासयेदुः । अष्टपत्र-

To propitiate Fire, offerings were made to him every day and prayers said.¹

A FEW OTHER WORKS OF PUBLIC UTILITY.

We shall now turn to a few miscellaneous works of public utility, which are not without some interest. These were:—

(i) *Jail deliveries*.—To celebrate the anniversaries of the king's birthday and in commemoration of the birth of a prince, the installation of an heir-apparent, or the conquest of a new country, prisoners were set at large. Generally, on full-moon days, such prisoners as were very young, old or diseased were let out. Sometimes the prisoners were set free in consideration of their uniformly good conduct in the jail.²

(ii) *Advocacy of temperance*.—Only a limited number of people was allowed to take part in

द्वारेषु गृहस्थानिभ्यो वसेयुः । अशंपातिभ्यो राज्ञी रथ्यासु कट्ट-
जासुश्चर्चं तिष्ठेयुः । अतुष्यवद्वारे राजप्रतिपद्येषु च । प्रदीप्त-
मनमिषावतो गृहस्थानिभ्यो द्वादशपक्षो दण्डः । षट्पक्षो विक्र-
वित्तः । प्रसादाद्दीप्तेषु अतुष्यवद्वारत्पक्षो दण्डः प्रादीपिकोऽभिना
वधः ।—Bk. II, नागरकप्रवृत्तिः, p. 145.

¹ Bk. IV, उपनिषातप्रतीकारः ।

² Bk. II, नागरकप्रवृत्तिः ।

liquor traffic, and a heavy fine was imposed on those who violated the rule. Liquor was sold only in small quantities not exceeding 1 prastha or $1\frac{1}{2}$ kancha in any case. Liquor shops were not allowed to be set up close to one another, and a Brāhmaṇ who took to drinking was very severely punished.¹

(iii) *Grant of jagirs, etc.*—Brāhmaṇs performing sacrifices, spiritual guides, priests—all of them learned in the *Vedas*—were granted lands yielding sufficient produce and exempt from taxes. They were also given forests of *soma* essential to sacrifices.²

The wives and children of those officers who died while on duty received allowances. Infants and aged or diseased persons related to the deceased officers were shown favour. Under pecuniary stress, the officers were given forest produce, fields, cattle, etc., along with a small amount of money.³ Indigent widows and disabled women and girls were provided with work in the weaving depart-

¹ See *सुराशयः*—Bk. II, p. 119, and *वाक्यकर्मणोः*—Bk. IV, p. 220.

² Bk. II, *भूमिच्छिद्रविधानम्* ।

³ Bk. V, *भूम्यनुरक्षितम्* ।

ment of the State. Those women and girls who did not come out of their houses in strict observance of the *Pardâ* system but were compelled by poverty to work for subsistence, had their work brought within their reach daily by women servants of the weaving-house.¹

(iv) Government seems to have kept a close watch that the claims of slaves, hirelings and dependents were not over-ridden. Elders of villages were entrusted with the duty of looking after the orphan minors in a village, and no person having wife and children was allowed to become an ascetic until he had made adequate provision for their maintenance. The State provided with maintenance the infirm and afflicted.²

¹ Bk. II, सूनायकः ।

² Bk. II, अनपह्नितेभः ।

CHAPTER VII.

THE CENSUS.

IT is interesting to know that there was some form of census current in India over two thousand years ago. Megasthenes hints at this in the following extract we make from his account:—

“The third body of superintendents consists of those who inquire when and how births and deaths occur, with the view not only of levying a tax but also in order that births and deaths among both high and low may not escape the cognizance of Government.”¹

The testimony of Megasthenes is amply confirmed by the details of census and similar operations preserved in the Arthaśāstra. The necessity to Government of an intimate knowledge of the places and people under it goes without saying, and it is no wonder

¹ Megasthenes, Bk. III, Fragment xxxii.

that in the effective administrative organization of Chandra Gupta there was found a place for census operations, the scope and aims of which were, however, necessarily different from those of similar operations in modern times.

The distinguishing feature of Chandra Gupta's census appears to be that it was not periodical, but a permanent institution—a department of the State run by permanent officials. The department was a large one, manned by several officers. The head of the department was called *समाहर्ता*, *i.e.* collector-general, who combined in himself, besides those connected with the census, various other functions, such as collection of revenue, checking accounts, land survey, and the like. The area under his administration was in the first instance divided into four districts, and each district into a number of villages. Each district was placed under an officer (*स्वामिन्*), and under him was appointed a number of subordinate village officers (*गोप*), whose work was supervised by their superiors, the district officers. The village officer was put in charge of five or ten villages, according to the directions of the

collector-general.¹ Besides these, inspectors (प्रदेहा) were appointed for checking both the work and methods of the village and district officers. But this inspection was not enough. Over and above the inspectors, a special batch of officers was appointed by the collector-general to work as spies and "overseers" under various disguises on their own independent lines and supply information on their own account. The sphere of work of the spies was not identical with that of the village officers, for it included certain points of inquiry to which the village officers had to attend, and at the same time a few independent heads of inquiry, as will be explained below.

The functions of the village officers (excluding those in connection with the land survey) were these²:—To number the inhabit-

¹ समाहर्ता चतुर्थां जनपदं विभक्त्य श्रेष्ठ-मन्थन-कविष्ठ-वि-
भाजेन प्रामाण्यं परिहारकमायुषीयं चान्यपयुष्टिरसकुल्यविष्टिकर-
प्रतिकरमिहनेतावदिति निबन्धयेत् । तत्रप्रद्विष्टः पञ्चपानी इत्य-
धारी वा गोपज्ञिकयेत् । एवं च जनपदचतुर्भावं ज्ञानिकः
ज्ञिकयेत् । गोपज्ञानिक-ज्ञानेषु प्रदेहारः कार्यकरं वल्लिप्रपदं
च कुर्वन् ।—Bk. II, समाहर्तप्रचारः, pp. 141, 142.

² तेषु चैतावचातुर्वर्षनेतावन्तः कर्षक-गोरक्षक-वैदेहकावकर्म-

ants of all the four castes in each village ; to count the cultivators, cowherds, merchants, artisans, slaves, the young and old men and women of each house, and ascertain their character (चरित्र), occupation (व्यवसाय), income (आजीव) and expenditure (व्यय)¹; to number the biped and quadruped animals in each house, the taxpaying and non-taxpaying houses, and determine the amounts of gold, free labour, tolls and fines collected from each house.

The functions of the spies, besides their duties in connexion with land survey and revenue collection, were²:—To number the total of inhabitants in each village, to number the houses and families in it, to ascertain the caste and profession of each family ;

करदायाश्चैतावच्च द्विपदचतुष्पदमिदं चैव चिरस्य-विहि-गुरु-
दण्डसमुत्तिष्ठतीति ।

मन्त्रार्थं च करदाकरदसङ्ग्रामेन ।

—Bk. II, समाहर्तृप्रचारः, p. 142.

¹ कुलाणां च जीपुत्रपार्थां बालहृदकर्मचरिवाजीववय परि-
मार्थं विद्यात् ।—*Ibid.*

² समाहर्तृप्रदिहास्य मन्त्रपतिकवचमना येषु ग्रामेषु प्रविष्टिता-
शेषां ग्रामार्थां चेषमन्त्रकुलापं विद्युः । मानसज्ञानार्थां चेषाणि,
मोक्षपरिहारार्थां मन्त्राणि वर्ष-कर्मार्थां कुलाणि च । तेषां
जज्ञापं चायववी च विद्युः ।—*Ibid.*

to determine which house was tax-free; to determine the occupiers of houses; to ascertain the income and expenditure of each family; to count the number of domesticated animals (अङ्गाय) of each house. It will be seen that these points of inquiry are in common with those of the village officers; over and above these, there were a few independent heads of inquiry,¹ viz. to find out the causes of emigration and immigration, to ascertain the number of men arriving and departing, and to watch the movements of men and women of suspicious character. It should be remarked that they had to perform the above duties under the guise of householders (गृहस्थवस्त्रजनाः). Disguised as ascetics (तापसवस्त्रजनाः), they watched the movement of cultivators, cowherds, merchants, and superintendents of Government departments.² Sometimes, also, under the guise of thieves (चोरवस्त्रजनाः), the spies, with their followers, frequented places of pilgrimage,

¹ प्रज्ञितानामनां च प्रवासावासकारणजनार्थानां च जीपुत्रवासां चारप्रचारं च विद्युः ।—*Ibid.*

² एवं समाहर्तृप्रदिहाज्ञापयवस्त्रजनाः कर्षकचोरचकवैहेयकानाम-
थवासां च शीवाशीचं विद्युः ।—*समस्तप्रचारः*, p. 148.

bathing-places, deserted tracts, mountains, ancient ruins, etc.,¹ to detect thieves, enemies and wicked persons.

The census of cities and the metropolis was the work of departments under officers called *नागरकः*.² Every city had its *नागरकः*, and was, like the province, divided into four quarters, each administered by an officer known as *खानिकः*. Under him worked the minor officers called *Gopas* (गोप), who had to keep the account of ten, twenty, or forty households as the case might be. They had not only to ascertain the caste, *gotra*, name and occupation of both men and women of those households, but also to ascertain their income and expenditure. To minimize the difficulty of keeping account of travellers and other non-residents,³ managers of charitable institutions were required to send

¹ पुराण - चोरवृद्धनाशोवासिनश्चेत्य-चतुष्पथ-ग्रन्थापदोद्-
पान-नदी-निपाणतीर्थायतनाग्रमारण्य-श्रीसुवन्नमहनेषु खेनामिष-
प्रवीरपुत्राणां च प्रवेक्षणखानममनप्रयोजनान्युपलभेरन्—*Ibid.*

² समाहृतं वदन्नागरको नगरं चिन्तयेत् । दशकुलीं गोपो, विंश-
तिकुलीं चत्वारिंशत् कुलीं वा । स तस्यां स्त्रीपुत्राणां जाति-
शोचनामकर्षाभिः जङ्गापमायस्यथै च विद्यात् । एवं दुर्गचतुर्भाजं
खानिकश्चिन्तयेत् ।—Bk. II, *नागरकप्रश्निः*, pp. 143, 144.

³ धर्मावस्थानः पापस्थि-पञ्चिकानावेद्यवाससेषुः ।—*Ibid.*, p. 144.

information to the census offices in case any such person arrived to reside therein.¹ Masters of households were also similarly required to send reports of the arrival and departure of strangers. If they failed to make such reports they were fined. Merchants, artisans, physicians, etc., had also, under the city rules, to make reports to the officer in charge of the capital regarding people violating the laws of commerce, sanitation, etc., for better management of the city affairs; but as these fall outside the scope of the census, we need not take note of them.

It has been already pointed out that the work of land survey was entrusted to those very officers who conducted the census operations. The duties of the officers in regard to land survey were mainly those of setting and fixing the boundaries of villages, classification and numbering of plots of land as cultivated and uncultivated, plain and upland, wet and dry, and so forth. An account was also kept of gardens and forests, temples and places of

¹ प्रखितानती च निवेदयेत् । अन्यथा राजदोषं भवेत् । चेन्न-
राजिषु विपक्षं दद्यात् ।—*Ibid.*

pilgrimage, feeding-houses, irrigation works, roads and crematories, storages for travellers, and pastures.¹ The supplementary body of officers or "overseers" had also to examine the accounts of this department regarding the fields, houses and families of such villages.

In conclusion, a few words should be said in regard to the scope and aims of the census operations in ancient India. The necessity of them appears to have rested on political as well as economic grounds. Politically, they were of great advantage to a Government like Chandra Gupta's, surrounded as he was by quite a number of independent hostile kingdoms. The census system kept him and his officers fully informed of those facts that were necessary for the security of the empire. We find it laid down as one of the duties of the census officials that they should watch the movements of suspicious people, of foreign spies, the emigration and immigration of men

¹ हीमावरोधेन यामार्थं जडाकड-खडकेदारारामवख-वाड-वन-बाकु-चैत्यदेवमठ-वेतुवनमज्ञानसच-प्रपापुखजानविगीतपधि-सङ्ग्रामेन चेबाधं; तेन हीका चेबाधा च मर्बादारख-पधि-प्रमाच समदान विक्रवानुपचपरिहारनिबन्धान् कारयेत् ।

—समाहर्तृप्रचारः, p. 142.

and women of doubtful characters, and ascertain the causes thereof. These are facts of which an accurate knowledge is indispensable for the security of the State.

The census helped them politically in another way. We see in a passage, already quoted in another connexion,¹ that villages were classified not only as of first, middle, and lowest rank, but also as those that were free from taxation (परिहारक), those that supplied soldiers (मायुधीय), those that paid taxes in grains, cattle, gold, forest produce (कृष्य), etc., and those that supplied free labour (विहि); so that the census was of help to Government by supplying information as to which villages formed the most convenient recruiting grounds for the imperial army.

Economically, the importance of the classification of villages and of the information as to the occupations of the people, their income and expenditure, etc., goes without saying, forming as it did a valuable aid to taxation and a most

¹ समाहर्ता श्लेष्ट-मध्यम-कनिष्ठ-विभाजेन ग्रामार्थं परिहारक-
मायुधीयं ग्राम्यपशुविहिरकृष्यविहिकरप्रतिकरनिदनेनावदिनि
जिबन्धयेत् ।—(समाहर्तुप्रचारः) ।

reliable index to the material condition of the people.¹

¹ The *Encyclopædia Britannica*, vol. v, p. 662 (New Edition), gives the following account of census operations of a few other countries in ancient times :—

“ The fighting strength of the Children of Israel at the Exodus was ascertained by a count of all males of twenty years old and upwards, made by enumerators appointed for each clan. The Levites, who were exempted from military duties, were separately enumerated from the age of thirty upwards, and a similar process was ordained subsequently by Solomon, in order to distribute among them the functions assigned to the priestly body in connection with the Temple. The census unwillingly carried out by Joab at the behest of David related exclusively to the fighting men of the community, and the dire consequences ascribed to it were quoted in reprobation of such inquiries as late as the middle of the eighteenth century. It appears, too, that a register of the population of each clan was kept during the Babylonian Captivity, and its totals were published on their return to Jerusalem. In the Persian Empire there was apparently some method in force by which the resources of each province were ascertained for the purpose of fixing the tribute. In China, moreover, an enumeration of somewhat the same nature was an ancient institution in connection with the provincial revenues and military liabilities. In Egypt, Amasis had the occupation of each individual annually registered, nominally to aid the official supervision of morals by discouraging disreputable means of subsistence; and this ordinance, according to Herodotus, was introduced by Solon into the Athenian scheme of administration, where it developed later into an electoral record.

“ It was in Rome, however, that the system from which the name of the inquiry is derived was first established upon a regular footing. The original census was ascribed to Servius Tullius, and in the constitution which goes by his name it was decreed that every fifth year the population should be enumerated along with the property of each family—land, live-

stock, slaves and freedmen. The main object was to ensure accurate division of the people into the six main classes and their respective centuries, which was based upon considerations of combined numbers and wealth. With the increase of the city the operation grew in importance, and was followed by an official *lustrum*, or purification sacrifice, offered on behalf of the people by the censors or functionaries in charge of the classification. Hence the name of *lustrum* came to denote the intercensal term, or a period of five years. The word *census*, too, came to mean the property qualification of the class, as well as the process of registering the resources of the individual. Later it was used in the sense of the imposition itself, in which it has survived in the contracted form of *cess*."

CHAPTER VIII.

THE COURTS OF JUSTICE.

It goes without saying that the welfare of the people is determined to a considerable extent by the nature of the law of the land and the efficient administration of justice. Laws are unseen agencies as important for popular well-being as the visible agents of government. The object of this and the following chapters will be to consider in detail some of the laws of Chandra Gupta's Government, the way they were administered, and the contribution they made to the material welfare of the country.

There were two classes of law courts in the country, the **बर्षादीव** courts and the **कष्ट-करोषव**¹ courts—each differently constituted. There was also a difference in respect of the

¹ Literally, the courts for the removal of thorns (disturbances).

nature of the cases that came under their cognizance.

First, as to composition,¹ each *चर्कोलीय* court² was made up of three persons well grounded in the *Śāstras* (*i.e.* *चर्कोलाः*) or three ministers (*चलात्माः*) who sat together for hearing cases.

In each *दण्डकरोषण* court, three *चलात्मा*'s or three *प्रदेहार*'s sat to decide cases.

Next, as to the jurisdiction of the courts, a *चर्कोलीय* court generally decided such cases as arose from the personal grievances of one or a few individuals against another or a few other individuals, and the punishments were only in fines, these fines being not very heavy. The cases that came within the jurisdiction of a *दण्डकरोषण* court generally related either to matters that affected the Government, the king himself, the public at large and large bodies of men, or to such other heinous offences as murder. Though small fines were inflicted by this court for offences that were not so grave, yet the fines for the graver offences ranged up to a very high limit.

¹ *Vide* p. 147, *अवधारणा*, and p. 200, *कारकवचनम्*—Bk. III, *Arthasāstra*.

² The text seems to be faulty: “*वा*” seems to be left out.

This distinguishes it from a चर्मक्षीय court. Another distinction consisted in the fact that it lay in the power of a कष्टकरोधन court to inflict capital punishment, with or without torture according to the gravity of the offences.

Below are given two lists of the kinds of cases that came under the cognizance of the two classes of law courts :—

I. The चर्मक्षीय court tried cases bearing on the following questions :—

(i) Validity of contracts—अवहारस्थापना. (ii) Violation of contracts of service—समयस्थानपाकर्म. (iii) Relation between master and servant, employer and labourer—स्वाम्यधिकारः, भूतकाधिकारः. (iv) Slavery—दासकल्पः. (v) Recovery of debts—दण्डदानम्. (vi) Deposits—क्षीपनिधिकम्. (vii) Rescission of sale—विक्रीतक्रीतानुग्रहः. (viii) Resumption of gifts—दत्तस्थानपाकर्म. (ix) Robbery and violence—साहसम्. (x) Assault—दण्डपाचयम्. (xi) Defamation—वाक्यपाचयम्. (xii) Gambling—यूतसमाह्वयम्. (xiii) Sales of property by another than owner—अस्वामिविक्रयः. (xiv) Rights of ownership—स्वस्वामिसम्बन्धः. (xv) Boundary disputes—सीमाविवादः, मर्थादास्थापनम्. (xvi) Construction of buildings—वास्तुकम्. (xvii) Sale of house property—वास्तुविक्रयः. (xviii) Damage to agriculture, pasture and public roads—विहीनचेचपय-हिंसा. (xix) Miscellaneous hindrances—वाधावाधिकम्. (xx) Duties of man and wife—विवाहसंयुक्तम्, विवाहधर्मः, क्षीयनकल्पः, etc. (xxi) Partnerships—संयुक्तसमुत्थानम्. (xxii) Inheritance and succession—दायविभाजः, दायक्रमः, etc. (xxiii) Miscellaneous offences—प्रकीर्षकानि. (xxiv) Rules of procedure—विवादपद्धतिवन्धः.

II. The कउकरोधन court tried cases relating to the following :—

- (i) Protection of artisans—कावकरचवन्. (ii) Protection of merchants—वेदेहरचवन्. (iii) Measures against national calamities—उपनिधानप्रतीकारः. (iv) Suppression of the wicked—भूदाजीविनी रथा. (v) Detection of criminals by ascetic spies—सिद्धलक्ष्मीजीवप्रकाशनम्. (vi) Arresting robbers on suspicion or in the act—शुद्धावकनीमिषयः. (vii) Post-mortem examination—आयुनूतकपरीक्षा. (viii) Cross-examination—बाककनीमिषयः. (ix) Discipline in Government departments—सर्वाधिकारचवन्. (x) Fines in lieu of mutilation of limbs—रक्षादवधिमिषयः. (xi) Capital punishment with or without torture—शुद्धिमिषयचवन्. (xii) Improper social intercourse—कन्याप्रकर्म. (xiii) Punishments for miscellaneous offences—अतिचारदण्ड.

It should be noted¹ that over and above these courts, the head-man (ग्रामिक) and the elders of a village (ग्रामद्वयः) played an important part in the settlement of disputes among the villagers, and the former was vested with the power of summarily punishing certain offences. It appears from a passage that he could “deport” out of the village under his charge a thief or an adulterer if such a step became necessary.

¹ See शाकुनिस्मृतः, p. 169, Bk. III, and विधीतशेषव्यवहारा, p. 171, Bk. III.

The king with his ministers and learned Brâhman's formed the highest court of appeal.¹

Now, as to the seats of the above courts: they held their sittings in every *संघसभ*, *i.e.* a town forming the headquarters of villages; in every *द्वीपसभ*, *i.e.* a town which was the headquarters of 400 villages; in every *सानीस*, *i.e.* a town being the headquarters of 800 villages; and in every *अनपदसभ*, *i.e.* a place centrally situated between any two provinces of the empire. It will thus be seen that the metropolis must have had courts of the above two classes besides the royal law court.²

¹ Bk. I, राजप्रतिधिः ।

² *अनपदसभ* and *द्वीपसभ* ।—Bk. III; see also Bk. II, *अनपदसभ* ।

CHAPTER IX.

LEGAL PROCEDURE.

IN the previous chapter the constitution of the law courts has been dealt with ; in the present, the laws themselves will be considered.

The four basal factors¹ that were taken into account in the administration of justice were : (1) Sacred laws or laws contained in the

- ¹ चर्कोष अवधारण्य चरिचं राजशासनम्
 (a) विवाहार्थं चतुष्पादः पश्चिमः पूर्ववापकः ।
 अथ सत्यस्मिती चर्को अवधारण्यु साचिपु
 (b) चरिचं संपद्ये पुंसां राज्ञामाज्ञा तु शासनम् ।

—Bk. III, विवाहपदनिबन्धः, p. 150.

That अवधारण्य means here a contractual relation or a contract is indicated by passage (b). It says that चर्को is based on truth, अवधारण्य on evidence, and राजशासन on the king's order, while custom is determined by large bodies of people. In fact, witnesses were essential to testify to contracts, which were mostly verbal in those days, and this favours the adoption of the above meaning. Besides, the word has been used in the above sense in Manu—VIII, 163, 164, 167 ; *vide* also the *Indian Wisdom* by Monier Williams, p. 268, where the word has been taken to mean contract.

Dharma Śāstras (धर्म), (2) contractual relations created by the parties (अवहार), (3) customary laws (चरित), and (4) statutory or king-made laws (राजशासन).

In case of conflict between (1) and (2), or between (3) and (4), the former prevailed over the latter (पश्चिमः पूर्ववाचकः); so that a contract could not transcend sacred law or a statute custom. Passages quoted below show, further, that a statute should also be in consonance with sacred law (धर्म), contract (अवहार) and equity (न्याय), and that in case of conflict between custom (संज्ञा) and contract (अवहारिक) the injunctions of sacred law should be followed. It is also stated that in the event of conflict between statute and equity the statute became inoperative and nullified.¹

When a case came up for decision, the pre-

¹ अनुशासति धर्मोऽवहारेण संज्ञया
न्यायेन च चतुर्थेन चतुरन्ता मर्ही जयेत् ।
संज्ञया धर्मशास्त्रेण शासनं वा अवहारिकम्
यस्मिन्नर्थे निरभ्येत धर्मोऽर्थं विनिश्चयेत् ।
शासनं विप्रतिपद्येत धर्मन्यायेन केनचित्
न्यायस्तत्र प्रसाहं श्यातत्र पाठो हि नशति ।

—*Ibid.*, Bk. III, p. 150.

(Here अनुशासन् and शासनं refer to राजशासनम्, i.e. king-made law.)

liminary step taken was the registration of the following particulars regarding the suit :—

(i) The exact date (showing the year, season, month, fortnight and day); (ii) the nature of the offence, and (iii) the place of its occurrence; (iv) the amount of debt incurred, if any; (v) the country, village, caste, *gotra*, name and occupation of the plaintiff (बन्दी) and the defendant (प्रतिबन्दी), both of whom must be competent to sue; and (vi) the statements of the parties, which had to be thoroughly scrutinized by the court.

Each of the parties had to be on guard against the following kinds of the offence termed *परोक्तदोष* (*paroktadosha*):—

(1) Deviating from the question at issue and taking to another question; (2) contradicting the previous statement; (3) insisting on the need of consulting the opinion of a third person though his opinion be not worthy of such consideration; (4) breaking off while answering a question though ordered by the court to continue; (5) introducing questions other than those already specified; (6) withdrawing the statement already made; (7) not accepting what one's own witnesses have said;

and (8) holding secret conversation with the witnesses when it was not allowed.¹

Besides these,² there were other sorts of **परोक्षदोष**. The plaintiff had to make his rejoinders the very day the defendant had answered, for it was presumed that the plaintiff was ready to go on with the case; otherwise he was guilty of **परोक्ष**. But if the defendant was not ready for the case, he was allowed three or seven nights to prepare his defence. If he failed to make his defence within that time, he was punished with a fine ranging from three to twelve **panas**. If he could not answer even after three fortnights, he was guilty of **परोक्ष**, and the plaintiff could recover out of the defendant's property the amount sued for, unless he (plaintiff) agreed to accept in its stead some good service from the defendant. The same punishment was inflicted on the defendant who utterly failed in his defence. If the plaintiff failed to prove his case within the aforesaid time, he committed a **परोक्ष**. If he failed to substantiate his charge against a deceased person, he was made to

¹ Arthasāstra, p. 149.

² *Ibid.*, pp. 149 and 150.

perform some of his funeral rites. If¹ he was not a Brāhman he might be ordered to perform the ceremonial *रक्षोन्नरुचिनम्*. The fine for *परोक्ष* generally was *पञ्चवन्*. Making an assertion without any evidence to support it was another *परोक्षदोष*, the fine for which was *दशवन्*.²

In cases other than strife, violent and direct seizure of property and disputes among merchants, the defendant could not file a counter-case against the plaintiff. Two suits against a defendant for the same offence were not allowed.³

We now proceed to consider the rules regarding witnesses. At the outset it is to be noticed that agents were attached to the law courts for secretly ascertaining if possible the

¹ This passage seems to be a little faulty, and the meaning of the next passage, "आदिं वा सकामं प्रवेदयेत्," is not clear.

² Vijñānesvar, in his Commentary on Jājñavalkya II, v. 174, explains *पञ्चवन्* as a fine equal to the fifth part of anything lost or stolen.

If in the light of this explanation, we take the meanings of *पञ्चवन्* and *दशवन्* to be the fifth and tenth part of the amount sued for, we meet with difficulty in applying them to line 6, p. 176, Bk. III, *अथादानम्*, and line 6, p. 184, Bk. III, *दासकथः* ।

³ अभियुक्ती न प्रत्यभियुञ्जति अथवा कलह-साहच-सार्ध-सम-वाद्येभ्यः । न अभियुक्तेभिसीमोक्तिः ।—p. 149.

real facts of a law-suit, and for reporting them to the judges.¹ How far the information they furnished would be followed in a particular case depended, of course, upon the discretion of the judges. They had to use their discretion with great caution, especially in cases like that instanced in the passage quoted below,² where the depositions of witnesses were inconsistent and contradictory, and consequently in conflict with the statement of the plaintiff, and where there was a divergence of the report of the "informants" from both the statement of the plaintiff and the evidence.

The principal check upon the indiscretions of the judges was the punishment they incurred for their laches and iniquity. The report of the informants had to be utilized therefore with great care, and, with its chances of abuse minimized, it was meant to help the judges sometimes by creating suspicions in their minds which prompted them to sift the

¹ पूर्वोत्तरार्थभावात् साक्षिवत्तत्कारणे
 चारुदत्ताच्च जिन्याते प्रदेष्टव्यः पराजयः ।

—Bk. III, विवाहपदनिबन्धः, p. 151.

² *Ibid.*

evidence more cautiously, and sometimes by corroborating the conclusion pointed to by the statements of the witnesses.

We find from the Arthasâstra that a suit was not dismissed on the ground that there were no witnesses forthcoming to testify to the question at issue. For instance, in disputes regarding the non-payment of the wages of a labourer, he could sue his employer even if he could procure no evidence to support his suit.¹ Such a procedure would appear strange, unless we bear in mind that over and above cross-examination of the parties and overt inquiry that could be availed of in such a case, there was another resource to fall back upon, viz. the secret agency for collecting information. Several such instances will occur to us as we proceed.

Let us now turn to other rules. In a law-suit three witnesses, either *approved by both the parties* (अनुमताः), *trustworthy* (प्रात्यधिकारः), or *pure* (शुचयः),² served the purpose best. In a

¹ Bk. III, दासकल्पः, p. 184.

² प्रात्यधिकारं शुचयोऽनुमता वा चयोऽवराज्जाः । पञ्चानुमती वा द्वी चक्षुः प्रति न लेखकः ॥—Bk. III, p. 175. चक्षुःशब्दं, प्रात्यधिकारः । In view of the fact that even a suit with no

suit for debt, however, two *witnesses approved by the parties* might be sufficient, but never one.

The fact of relationship with the plaintiff or defendant affected the competence of a person as witness. The following persons were not eligible as witnesses, viz., (1) wife's brother (स्राह), (2) helpmate (सहाय), (3) prisoner (आवह), (4) creditor (पणिक), (5) debtor (आरणिक), (6) enemy (वैरी), (7) dependent (न्यह), (8) convict (घृतदण्डः). In addition to these a few other persons could not appear as witnesses except in cases which affected their own people: (a) the king (राजा), (b) a person learned in the Vedas (त्रोचिष), (c) the village poor (ग्रामभृत्), (d) lepers, etc. (कुष्ठि, व्रची), (e) an outcast (पतित), (f) a Chandāla (चण्डाल), (g) a person of mean avocation (कुत्सितकर्मा), (h) a dogmatist (अचंवादी), (i) a female (स्त्री), and (j) a Government servant

evidence to support it could receive hearing, it seems inconsistent to translate "अथोत्तरार्थोः" by "at least three witnesses." So it would perhaps be more reasonable to take "अवरार्थोः" in the sense of "serving the purpose best" (नास्ति वरः यस्मान् = अवरः).

प्रात्ययिकाः and सहायः.—It may be that they refer to two distinct classes of witnesses designated by the two names, the most marked attributes of a witness determining the class under which he falls,

(राजपुत्र).¹ In cases of assault, etc. (घात), theft (चोरी) and rape (बन्धन), persons other than the enemy, the wife's brother and the help-mate could bear witness. Any man or woman having secret knowledge of an underhand transaction could be a witness in regard thereto. The king and the ascetics (नान्द) were exempted from this rule.

In case of a dispute between father and son, preceptor and pupil, or master and servant, the words of the superiors were given greater credence.

Witnesses had to take oaths to divulge the truth before Brāhman, vessels of water and fire. There were set formulas, varying according to the castes of the witnesses, by which they were urged to speak the truth. A Brāhman witness was simply told "Speak thou the truth." The formula for a Kshatriya and a Vaiśya was: "Thou wilt not have fulfilment of thy ambition and wilt have to go a-begging to thy enemies with a skull in hand for a begging-bowl (if thou speak

¹ In this passage it is not clear who are indicated by the words "पुत्र" व "बन्धन", p. 175, Bk. III, अथाहोमम् (साक्षिभारः) ।

falsehood).” A Śûdra was exhorted thus: “All thy religious merit will go to thy king and all the sins of the king will come to thee (if thou utter a lie), and moreover, thou wilt be punished. Inquiry will be made as to what has been seen or heard.”¹

If the witnesses made a concert among themselves and kept back the truth for more than a week, they were fined twelve paṇas. If they continued obstinate for more than three fortnights they were punished with the payment of the amount sued for.

When the witnesses gave divergent evidence, the judgment was passed upon the basis of the statements of the majority of pure (शुचयः) and approved (अनुमतः) men among them. Or the judgment could follow a *via media*, if any such were suggested by the diverse statements of the witnesses. Failing these, the Government assumed possession of the article, if

¹ शास्त्रादीदङ्गुत्सापिसकारे साक्षिणः परिदृशीयात् । तत्र शास्त्रं ब्रूयात्—“सत्यं ब्रूषीति” ; राजस्यं वैशं वा “ना तवेहापूर्तफलं कपासवसद्भुवनं भिक्षार्थी मन्त्रे” रिति । इन्द्रजन्म “नरवाक्रे यद्दः पुष्पफलं तद्राजानं मन्त्रेत् । राजस्य क्षिप्रं युष्मान् अन्यथावादे दण्डयानुबन्धः । पश्चादपि ज्ञायेत यथादृष्टानुत्तम्” ।—Bk. III, अथादानत, p. 176.

any, that formed the subject matter of the dispute.

If an amount were sued for and the witnesses deposed that only a part of the amount belonged to the plaintiff, then the rest of the amount had to be deposited with the Government. If, however, the witnesses testified to an amount greater in value than what was actually sued for, the excess went to the Government coffers.

Those witnesses who were easily accessible were called by the parties themselves; those who were far away or who would not come to court except under compulsion were served with summons (ज्ञानिवाक).

The defeated party had to bear the fees paid to the witnesses. They received a food allowance (पुस्तकदान) in which were taken into account eight items of food. What these items were is not known. Besides this allowance, they were given the necessary expenses for and during their journey.

A peculiarity of Hindu law courts in ancient times was that the judges had to pay a penalty for their iniquity. They were strictly enjoined to decide cases free from all circum-

vention, steady in all circumstances, impartially and diligently, thus winning the love and confidence of the people ; but if they were guilty of any laches, partiality or any such misconduct unworthy of a judge, they could not escape with impunity. This feature is also noticed in Chandra Gupta's law courts. If a judge threatened, rebuked, silenced or drove out a party to a suit, he was liable to the lowest amercement ;¹ and for abusing a party, to a fine of double the amount. If he put irrelevant questions to a party, wilfully omitted to ask a pertinent question, did not note down what he heard in reply to his queries, tutored or provided a party with his previous statements, he was fined the middlemost amercement. If he inquired into unnecessary circumstances, caused delay by such inquiry, postponed work on flimsy pretexts, tired the parties out of court by his dilatoriness, misled them, helped the witnesses with clues, or resumed the work already disposed of, he was punished with the highest amercement. If he committed any of the offences a second

¹ For the three kinds of amercement, see Bk. III, *दादवन्*, p. 192.

time, he was fined double the amount and dismissed.

For an unjust fine, a *बर्खास्त* or *प्रदेहा* was fined double the amount or eight times the excess of the amount over the prescribed limit, according to the nature of the offence. If a corporeal punishment were unjustly inflicted, he was condemned either to the same punishment or to the payment of twice the amount fixed in lieu of that kind of punishment. The judicial officer who brought to naught a good case or helped to concoct a false one was fined eight times its value.

The scribe who took down the statements of the parties was liable to the following punishments for negligence or misconduct. If he wilfully omitted to note what was said, noted down what was not said, left out what was badly said, or rendered diverse or ambiguous what was well said, he was liable to the first amercement or to any other punishment proportional to his guilt.

Care was taken to prevent the escape of a culprit from the law court (*बर्खास्त*), the *hâjat* (*बारद*), or the prison (*बन्धनागार*), as

well as to prevent the abuse of the jailor's authority.¹

It is not clear who tried the judges for their misconduct. It seems most likely, and it is also consonant with the ancient Hindu law-codes, that the king or his associate judges tried them.²

Certain latitude seems to have been given to the superintendents of the several State departments to summarily dispose of certain kinds of offences committed by their subordinates. How far their power extended in this direction is not clearly defined, but it seems to have been confined to the offences done by the subordinates in their course of business.

¹ See Bk. IV, *सर्वाधिकारसूत्रम्*, pp. 222, 223.

² See J. R. A. S., vol. ii, p. 193—"On Hindu Courts of Justice."

CHAPTER X.

THE LAW OF CONTRACT.

§ 1.—GENERAL.

To understand the full significance of contract (अवधार) as it obtained over two thousand years ago, it is essential that we should free our minds from the modern associations of the institution.

We shall begin with a general statement of the requisites of a valid contract, and then follow out each of those requisites in detail.

A contract¹ was of course a two-sided

¹ (X) तस्मान् वाचिमद्वयं कुर्यात् समन्वितापितम् ।

से परे वा जने कार्ये देवकाशापवर्तनः ।

—Bk. III, वीपनिषिकम्, p. 181.

(Y) से से तु वर्ने देवे कासे च सकरबद्धता

सम्पूर्णचाराग्रददेना उडरुपलक्ष्य-प्रभावनुशासुसर्ष
अवधारान् सिद्धयेयुः ।

(पश्चिमं जेषां करवमादेवशिष्यर्षं वदेयुः)

—Bk. III, अवधारशापना, p. 148.

In (Y), सकरबद्धता may be taken to refer to the free exercise of

act, and the parties thereto could be both individuals as well as groups; *e.g.* a body of persons engaged in a common concern (सम्बन्ध समुत्पन्न) was entitled to be a party to a contract.

Secondly, a contract had to conform to the following restrictions, viz. (a) that the agreement between the parties should be

one's will, though a technical meaning (=document) may be attached to करण (*vide* Manu, VIII, 51, 52, 154).

I quote here Manu, VIII, 51 :—

अर्थोपचयमानक्तु करणेन विभावितम् ।
दापयेदनिवृत्तार्थं दण्डोत्पन्नं शक्तिः ।

But whichever meaning is taken, the reference to the unfettered exercise of the will of the parties is apparent in both the cases. करण in the second sentence in (Y) seems to bear the meaning of "document." उच्यते refers to the object or the उच्यते of the contract, and रूप to the circumstances under which a contract is made. This meaning of रूप (circumstances as opposed to the time and place of a contract) is found in Manu, VIII, 45—

सत्यमर्थं च सम्यग्ज्ञेदात्मनस्य चाश्रितः ।
देहं रूपं च कालं च व्यवहारविधी क्षितः ।

प्रमाण=authority. It seems to refer to capacity of the parties, witnesses, etc. सम्बन्धोपचार refers to all the technicalities that are to be complied with. अहोरेक, however, seems to be a needless repetition of what is implied by देहे that goes before.

clearly expressed (बख्खिआबिख), (b) that it should not be made in secret (अख्ख), and (c) that it should be in the presence of witnesses (आखिख).

Thirdly, it should comply with certain conditions as to time (कख), place (खेख) and वर्ण (i.e. caste, class, etc.).

Fourthly, the object (खखख) for which the contract was made and the circumstances (खख) attending it must be such as not to offend against law in any way; e.g. there must be no undue influence, etc. (अखखख).

Fifthly, the consideration (खेखख) must not be illegal and improper; the parties, witnesses and agents must be competent (अखखखखख). In short, the contract must conform to all the technicalities of law, i.e. it must be अख्खुखिख [see passages (x) and (y), f.n.].

The first requirements, as I have already stated, are that the agreement of the two parties should be expressed properly and that there must be no secrecy about it. Witnesses have to be called when a contract is formed. It appears that instruments (खखख) are used in contracts, and when the terms of a contract are entered on an instrument, the witnesses

can be dispensed with.¹ We find its parallel in some of the *Saṃhitās*. But witnesses were a necessity in oral contracts.² We find, however, an exception to this general rule. A suit was not dismissed on the ground that no witnesses were forthcoming to testify to a point at issue. In a dispute, for instance, regarding the non-payment of the wages of a labourer, the employer could be sued even if

¹ An analogy to this rule is found in Colebrooke's *Digest*, vol. i, p. 16, third edition, where the contract of loan is dealt with:—

“Bṛihaspati, quoted by Bhavadeva, Vāchaspati and Chandesar: A prudent lender should always deliver the thing, but, on receiving a pledge of adequate value either to be used by him or merely kept in his hands; or with a sufficient surety *and either with a written agreement or before credible witnesses.*”

Yājñavalkya, II, 91.—“But every document which is in the handwriting of the party himself is considered as sufficient evidence even without witnesses, unless obtained by force or fraud.” For the passage of Manu on this point, see *supra*. For references to documents in contracts, see the passage (Y) quoted above; see also the last sentence, p. 176, *असादानम्*, which runs thus: वाञ्छिष्णाद्भिषीकृवा दुःवृत्तं दुर्लक्षितं प्रेताभिनिवेशं वा समीक्ष्य साक्षिप्रत्ययनेव स्नात् ।

² It has been pointed out, while dealing with legal procedure, that three witnesses either approved by both parties (*अनुमताः*), trustworthy (*प्रात्यक्षिकाः*), or pure (*शुचयः*) served the purpose best. In a suit for debt, however, two witnesses approved by the parties might be sufficient, but never one. For a parallel rule as to the number of witnesses, see Yājñ., II, 69, 70; Manu, VIII, 60, 77.

the former could adduce no witnesses.¹ Other instances of this exception will be furnished by the class of contracts called निरोद्धित, to which we shall have occasion to turn presently. The presence of witnesses was repugnant to the object of a निरोद्धित contract; it was entered into in secret. A document may sometimes be used in such a case in lieu of witnesses, but sometimes there may be neither a document nor any witnesses.² Under such circumstances a dispute was decided by examination of the parties themselves, by a reference to any custom that might govern the transaction, by taking the opinion of experts (ब्रह्मन्तः), by utilizing other resources that the court commanded, *e.g.* the information given by the "agents" attached to the law courts, and by looking to some form essential to the transaction, *e.g.* the seal in the case of a sealed deposit. So we see that, as a general rule,

¹ दासकल्पः, कर्षककल्पः । Bk. III, p. 184.

² Manu, VIII, 109 and 110 (S. B. E.)—"If two (parties) dispute about matters for which no witnesses are available, and the (judge) is unable to really ascertain the truth, he may cause it to be discovered even by an oath."

"Both by the great sages and the gods oaths have been taken for the purpose of (deciding doubtful) matters; and Basishtha even swore an oath before King (Sudasa), the son of Pijavana."

openness and publicity were required for the formation of a contract, which had to be entered into in the presence of witnesses. The absence of witnesses could be made up for by an instrument or otherwise.¹

Let us now turn to the restrictions as to time and place with which a contract had to comply. As a rule, the following contracts were void, viz. those that were (i) नक्तकृत, *i.e.* formed during night; (ii) अन्तरमारकृत,² entered into in the interior apartment of a house; (iii) अरण्यकृत, made in a forest; and (iv) उपकरकृत, formed in any other secret place.³ The object

¹ In this connection it should be noted that a person who overheard or saw a thing by stealth could be taken as a competent witness—रक्षस्य व्यवहारे ज्ञेका स्त्री पुत्रव उपशोता उपद्रवा वा साक्षी स्यात् राजतापसवर्गः । p. 176—साक्ष्यधिकारः. Other rules as to witnesses, that have been pointed out in connexion with legal procedure in general, apply also to contracts under proper circumstances.

² Manu takes note of the interior apartments of a house (अन्तर्वेद्य) and of forests (अरण्य): Manu, VIII, 69. Kauṭilya also particularly mentions them. Yājñavalkya mentions both नक्त and अन्तरमार contracts in Bk. II, 82.

³ तिरोहितान्तरमार-नक्कारण्योपधुपकर-कृताश्च व्यवहारान् प्रतिषेधयेयुः । कर्तुः कारयितुश्च पूर्वस्साहसदण्डः । नोद्वेधाने-कैकं प्रत्यर्षदण्डः । नद्वेधानां तु द्वयवयवमयः ।

Exceptions:—

(a) परोक्षेवाधिकर्षपदचलनवक्तव्यकरा वा तिरोहितान्तिष्ठेयुः ।

of making these contracts void is, as already pointed out, that the law wanted to discourage clandestine contracts as far as possible. However, to remove possible hardship to particular classes of persons who might suffer by these rules, there were exceptions to the four rules. I shall speak of them here in the order of the above rules [*vide* (c), (b), (d), and (f)]:—

(i) Though all **नपुंसक** contracts are void, yet those that have some connexion with or are made to ward off violence, attack and affray, those that are formed for doing anything connected with the celebration of marriage, as well as those made under orders of Government, were valid. The contracts made by the **पूर्वराजवधवारिषः** also fall under

(b) दायनिधेयोपनिधि विवाहयुक्ता कीचामनिष्कासिनीनां वाधितानां चामुद्रसंज्ञावामकरारकृतासिद्धेषुः ।

(c) साहसानुपवेश कस्य विवाह राजनिधीययुक्ताः पूर्वराजवधवारिषा च रानिकृतासिद्धेषुः ।

(d) सार्वभौमवस - वाधवारिषा मधेकरस्यरावामकरकृतासिद्धेषुः ।

(e) मुद्राजीविषु औपचिकताः सिद्धेषुः ।

(f) निवससमवाये औपकरकृताः सिद्धेषुः ।

अतोऽथवा न सिद्धेषुः ।—Bk. III, व्यवहारशापना, pp. 147, 148.

this exception.¹ It will be seen that all the cases mentioned here are cases of great emergency. Unless the rule is a little relaxed in respect of people trying to defend themselves from assault, etc., the protection of their life and property would be an impossibility, and it

¹ The exceptions under (i) seem to contemplate such cases as this:—If A promises B to pay a certain sum of money in consideration of his informing a police officer of a burglary that is being committed in A's house, the contract cannot be impeached on the ground that it was made at night.

पूर्वरात्र अवहारिषः—**पूर्वरात्र** is the time from dusk to midnight. The use of the word in this sense occurs in Aitareya Brāhmaṇa, Kauṣika Sūtra, Kātyāyana Śrauta-Sūtra, Mahābhārata, Pāṇini II, i, 45, commentary (see Monier Williams). Those who usually transact business during this time are therefore **पूर्वरात्रअवहारिषः**. But who exactly are meant is not clear. If we take the meaning to be any persons who enter into contract during **पूर्वरात्र** then an objection may be raised that if such a case had been contemplated some such sweeping rule as the following would not have been laid down, viz. that any **वक्तव्य** contracts are void; the general rule could then well have been that all **अपररात्रवक्तव्य** contracts are void. Again, if all contracts be allowed up to midnight, why they cannot be allowed, say, a few minutes after midnight would be difficult to explain. Removal of secrecy about the contracts is the general policy, and therefore if all sorts of contracts are allowed during the first half of the night, they will offend against and for the time negative this policy. So it is most probable that only a limited set of persons is the object of consideration of the Government in this case, in view of the hardship that they will otherwise be put to, and therefore **पूर्वरात्र अवहारिषः** has most likely a technical meaning and refers to a limited group of persons.

is for the same reason, as well as for its own safety, that the State reserves to itself a full contractual freedom. Again, Hindu marriages are never celebrated before dusk, and sometimes the *lagna* (propitious moment) may shift so far into the night as to touch even its small hours; hence it is a necessity that contracts conditioned by such marriages should be sanctioned. As to the exemption relating to the class of persons last mentioned, there is some haziness as to who exactly are meant. The literal meaning of the word, viz. those who usually do their business during the first half of the night, does not carry us very far.

(ii) This exception shows some consideration to diseased *pardâh* women (अनिष्कामिणः स्त्रीः). If in a sound state of mind, they can make valid contracts relating to दाह (division of property), निक्षेप (open deposit), उपनिधि (sealed deposit), and विवाह (marriage) in the inner apartments of the house, though the general rule is that अकारण contracts are void.

(iii) Exemption is given by the third exception to traders (व्याप्य), बजाजस, i.e. cowherds, etc., hunters (शाय), spies (चोर), and those who have to roam in the forests fre-

quently (नखेवरवखर). They can enter into valid contracts in the forest, though contracts by all others in that place are void.

(iv) The fourth exception relates to the वपकर contracts. वपकर, as will appear from the text, refers to any secret place other than the private apartments of a dwelling-house or a forest. The general rule is that any contract in any such secret place is void, the exception being in favour of partners in a concern (निवसुवमवाव).

It should be noticed that in all the four excepted cases, the requirements as to witnesses, or in lieu of witnesses the requirements as to document, had to be complied with, though of course if a case occurs in which neither any witness nor any instrument is available, and which falls within any of the exceptions, it will stand on its own merits, and the judges may try such a suit if they find it possible to do so, or may dismiss it. Another point that should be noted is that if a person tries to make a contract which is void on any grounds, the proposer (कर्ता), the acceptor (अक्षेप), the witnesses (गोता), and the person who brings together the parties (कारबिता) are all fined.

Now we turn to the legality of the object

(दण्ड) and consideration (वेतन) of a contract. The object and consideration must be legal, and be such as can be upheld by a law court according to equity and good conscience. In the case of a contract in which one party tries to take undue advantage of the other, the court will interfere in favour of the party who is at a disadvantage. A concrete example given in the Arthasāstra will make it clear. If a person who is being carried away by flood, or is caught in a fire, or is in danger from wild animals, be rescued on his promise to give to his rescuer not only the whole of his property but also his sons, wife and himself as slaves, the proposer cannot be made to perform his promise, it being opposed to all justice and common sense, and therefore illegal.¹ The rescuer can realize only as much as is fixed by experts (कुल्लः) appointed by the law courts. Similarly, in the instance given of a contract with a public woman, improper demand made by her from her paramour or *vice versa* cannot succeed ; the court does not support any such

¹ Bk. III, p. 184,—दासकल्पः, कर्माकरकल्पः । नदीविनष्टाद्या-
 उन्नयाद्योपवहं सर्वसंपूज्यदाराकदानेनार्णजानारमाह्वय निशीर्षः
 कुल्लप्रदिष्टं वेतनं दद्यात् । तेन सर्वभार्तदानामुग्रया व्याख्याताः ।

demand. Likewise, it will be seen from the passages already quoted that the general rule is that all *व्यवहाराः*, i.e. fraudulent contracts, are void, but an exception is made in favour of the spies appointed by Government. They can in their capacity as spies achieve their object by fraudulent contracts and are not penalized for the fraud they commit. It seems to me that cases like the following are contemplated by this rule: A spy, for instance, makes friends with a person whom he suspects to be a thief, and gradually insinuating himself into his confidence, proposes to buy the goods he has stolen. After taking possession of the stolen goods, the spy refuses to pay the value promised and puts the machinery of the law against him instead. In such a case the law court punishes the thief, but it cannot punish the spy as well for the fraud he has committed; neither can the thief bring a suit against the spy on the same ground. Thus the law softens its rigour and legalizes an evil to suppress a greater evil.¹

¹ *E.g.*, Katyayana says: "If a bribe be promised for any purpose it shall by no means be given although the consideration be performed." (See Colebrooke's *Digest*, vol. i., p. 462, third edition.)

Now that the four kinds of valid contract, **बल्लकन, चक्रवर्तकन, चरककन** and **उपकरकन**, which derive their validity on account of the exceptions laid down, have been dealt with, it is time that we should turn to the valid (**निरोद्धित**) contracts. A place is **निरोद्धित** if it be such that anything done there would be sheltered from human sight.¹ It therefore includes **चक्रवर्तकन, चरककन** as well as **उपकरकन**. Now let us look at the matter from another standpoint. Under cover of night a place may become **निरोद्धित**, *i.e.* may be out of view on account of darkness. Therefore a **निरोद्धित** place which is **परोक्ष** has reference both to the nature and situation of the place as well as to time, *e.g.* night. The general rule is that contracts made in such a place are void, and the exception that attaches to this rule derives its validity from the objects in pursuance of which the contracts are formed. We shall consider the objects shortly, but before doing so, let us inquire whether the validation of a proper **निरोद्धित** contract necessarily involves a

¹ **परोक्षेवाधिकर्षणपक्षमवल्लकनकरा वा निरोद्धिताद्विषयेषु: ।**
Bk. III, p. 147. Here **परोक्ष** explains **निरोद्धित**. A **निरोद्धित** place is one which is **परोक्ष**, *i.e.* sheltered from human gaze.

deviation from the restriction that night vitiates all contracts. It seems that such a deviation takes place in this case. We see that two classes of objects are mentioned which can validate *नितोचिन* contracts, viz. (i) *अधिकर्षणम्*, *i.e.* contracting a heavy debt, and (ii) objects which are *अवज्ञायकम्*, *i.e.* cannot be expressed and brought into others' notice owing to the delicacy attaching thereto. As to (i), it should be noticed that incurring a heavy debt detracts from the credit and reputation of the debtor and lowers him in the estimation of the people who come to know of it. Therefore, for the benefit of the debtors perhaps, such an exception has been made. Regarding (ii), a difficulty arises as to what kinds of delicate and secret matters are meant. Among the numerous instances furnished by the *Arthasāstra* a valid contract between a woman of the town and her paramour seems to be, from its delicate nature, an instance in point.

We can well see that in a contract which involves a delicate matter, the contracting parties will rather seek the covert of night for the secrecy it can afford and shun by all

means the light of day. In view of this, it is in no wise strange that an express sanction is given to a deviation from the restriction as to night. It should further be stated here that a valid निरोद्धि contract also contravenes the general restrictions as to अन्तरकार, उपहर and चरच, for it has been already pointed out that निरोद्धि includes all the three places.

One word remains to be said to mark out more distinctly the difference between a निरोद्धि contract on one side and the three other contracts on the other. The principal difference lies in the objects of the contract, the objects of निरोद्धि contracts being secret and delicate. There are a few minor differences, which are apparent from the statements already made.

We shall next consider the restrictions as to the बन् of the witnesses [see passage (Y)].¹ The word बन् appears to be very comprehensive, and signifies everything that the expressions अपबन्तः and से परे वा जाने in passage (X) can imply. Kauṭilya does not explain clearly the restrictions, but they have to be interpreted in the light of what Manu and other

¹ The references here are to the two passages (X) and (Y) quoted in the foot-note at the beginning of this chapter.

such ancient lawgivers say on the point. In Manu the following rule is laid down, viz.—

“Women should give evidence for women, and twice-born men for twice-born men of the same kind, virtuous Śūdras for Śūdras, and men of the lowest caste for the lowest.”¹

The commentary of Medhātithi throws more light on this point. He says that “twice-born men of the same kind” means “twice-born men of the same caste, occupation, etc.” The line ले परे वा जने कार्ये (कुर्यात्) अपवर्षतः² signifies that a Brāhmaṇ should choose a Brāhmaṇ for a witness, a Kshatriya a Kshatriya, and so forth ; and failing that, a person belonging to another वर्ग may be taken as witness. Therefore the two passages (x) and (y) lead to this conclusion that the contracting parties should try to make their contracts in the presence of castemen of the same sex and occupation as themselves in the first instance, failing which they can take witnesses belonging to the same caste and sex but having a different occupation, and when this also fails, men of a different वर्ग may be called.

Next we consider the rules about the capacity

¹ लीलां वाच्यं किंच: कुर्याद्विजानीं सदमा द्विजा:

शुद्राश्च सन्तः शुद्रानामन्यानामन्यबोनिचः ।—Manu, VIII, 68.

² अपवर्षतः refers to the four वर्ग, viz. Brāhmaṇ, Kshatriya, Vaiśya, and Śūdra. [See passage (Y) *supra*.]

of parties to make a valid contract. No contract can be made if any of the parties be (i) in a fit of anger (क्रुद्ध), (ii) under stress of extreme sorrow,¹ distress and danger (आर्ष), (iii) intoxicated (मत्त), (iv) insane (उन्मत्त), or (v) under undue influence, duress, etc. (अपमर्शित).

Those who act in supersession of these bars are fined as already pointed out.

In connexion with the subject of contracts made through agents, of which I shall speak presently, a few terms occur which imply some other absolute disabilities so far as the principals are concerned.² अप्रामाण्यव्यवहार, for instance, indicates an age below which a person cannot make a valid contract on his own account; similarly, अतीतव्यवहार³ signifies

¹ In the case of an agreement with an आर्ष (man in distress), though no contract with him can hold good at law, yet we find that the law court makes him pay a sum fixed by experts (कुलशा.) if he has already got any benefit from the other party. (See Arthashastra, Bk. III, p. 184, दासकथः.)

² अपात्रव्यवहार इत्यादि, पित्रस्य पुत्रेण, पिता पुत्रवत्ता, निजकुलेन भावा, कनिष्ठेनाविमल्लारेण, पतिवत्या पुत्रवत्या च जिषया, दासचित्तकाया, अप्रामाणीतव्यवहाराया, अनिमलप्रजितव्यवहारनिमित्तान्यपनिष्ठव्यवहारेभः ।

—Bk. III, व्यवहारसाधना, p. 148.

³ अतीतव्यवहार literally signifies a person who has lost his capacity to contract in any way; but most probably a limit of age is meant.

another disability, due most probably to an age-limit beyond which a person is supposed to lose the amount of discretion that is necessary for making contracts on his own behalf, though he may act as an agent under the instructions of his principal, just as a minor can. Manu and others, however, make decrepit old age (कृबिरत्व) an absolute bar. It should also be noted that an ascetic (ब्रह्मचर), a person convicted (दण्डित), one physically deformed (बध्ना), or one passionately addicted to any kind of evil practice, *e.g.* drinking (बहनी), can, according to Kautilya, make contracts on behalf of principals authorizing them, but Kautilya does not clearly state whether they can also enter into contracts on their own behalf. Some of our ancient lawgivers, however, mention a few of the above conditions as nullifying contracts.

One other disability remains to be mentioned. A woman cannot have pecuniary dealings with a man or a woman with whom she is forbidden by law or by her superiors to do so.¹ If she

¹ See Bk. III, p. 156, विवाहसंयुक्ते—प्रतिषेधः.

Cf. Nārada to Indra in the Harivaṅśa: "No man, O thou subduer of foes, should have pecuniary dealings with him from whom he desires much affection, nor visit his wife in his absence."—Colebrooke's *Digest*, vol. i, p. 16.

violates the prohibition she is punished. This rule applies also to a male.

We shall now consider the rules about the appointment of agents. The following persons, if authorized by the principals, can make contracts as agents :—

(i) Dependents, for the person who supports them, (ii) son, for the father, (iii) father, for the son, (iv) a brother, for another brother though not belonging to the same joint family, (v) a younger brother belonging to the same joint family, for an elder brother, (vi) a woman, for her husband or her son, (vii) a slave, for his master,¹ (viii) a minor (अमानववयस्यार), for one who has attained majority and is otherwise competent to contract, (ix) a person who is अतीतवयस्यार (see above), (x) a person convicted (अदिव्यक्त), (xi) an ascetic (प्रव्रजित), (xii) a physically deformed person (बद्ध), and (xiii) one addicted to passion (असन्धी).²

I shall now name here the principal transactions that bear the character of contract :

¹ For the meaning of अमानववयस्यार, see Arthaśāstra, Bk. III, p. 182, दासकल्पः.

² For the text, see *supra*. The text seems to be a little faulty in its first portion, and so I interpret it subject to some doubt.

(i) ऋणादानम् (loan), (ii) विक्रय (sale), (iii) निक्षेप (open deposit), (iv) अक्षिप्त (sealed deposit), (v) mortgage, pledge, etc., (vi) hire, (vii) partnership, (viii) contract of service, and (ix) a few other miscellaneous contracts.

From the above we have an idea of the elements that made up व्यवहार in Chandra Gupta's time. The elements that constituted a व्यवहार may well justify us in calling it a contract, though, of course, owing to the peculiar circumstances of the time in which it prevailed, it assumed a different complexion. We notice also that Government exercised a good deal of control over the details of the subject's life, and therefore legal interference touched spheres now looked upon as merely moral or social. A vagueness necessarily attaches to some of the details of व्यवहार, but on the whole we see its broad features and in them a generic likeness to a modern contract.

§ 2.—SALE AND PRE-EMPTION.

We have discussed the general principles underlying Hindu contract in Chandra Gupta's time, and shall proceed to discuss some

of the more important contractual transactions.

We begin with the sale of immoveable property. The first provision in regard to this is that the piece of property on sale has to be offered for purchase in the first instance to the kinsmen (ज्वातवः) of the seller. If they do not propose to buy, then the property has to be offered to the neighbours, who can claim such right on the ground of vicinage or participation in the appendages (वास्तवः); and on their refusal to purchase, the property is to be offered to the creditors of the seller (धनिकाः).¹ These rules evidently indicate that something like the right of pre-emption existed in those days. The texts concerning pre-emption are very few in Sanskrit legal literature, and even those that exist have been explained away by later commentators. I quote here Prof. Jolly's view on this point:—

“A trace of pre-emption in the Hindu law occurs in the text quoted in the *Mitāksharā*² and other standard law books. It is

¹ ज्वातिवामनधनिकाः क्रमेण भूमिपरिग्रहान् क्रेतुमभ्यामवेयुः ।

—Bk. III, वासुविज्ञः, *Arthasāstra*, p. 168.

मृचवासुज्ञम् ; वासु here means मृचं चैवमारामम् सेतुवन्म-
ज्जाकमाधारो वा, p. 166.

² Colebrooke's *Mitāksharā*, chap. i, sect. i, 81.

as follows—'Transfers of landed property are effected by six formalities: by consent of fellow-villagers, kinsmen, neighbours and co-parceners, and by gift of gold and water.' This text indicates clearly the existence in the early period of the Hindu law of a feeling that a transfer of landed property is not valid unless the neighbours, fellow-villagers and others who are but remotely concerned with it should have given their consent to its being effected. These persons might therefore be supposed, perhaps, to have been invested with a right of pre-emption. Whatever notions may have been prevalent on this subject in the early period of the Hindu law, this much is clear, that the compilers of those commentaries and digests of law on which the modern law is based did not approve of any sort of pre-emption. Thus the *Mitāksharā*, in dealing with the above text, deprives it entirely of such legal significance as may have once belonged to it. The consent of fellow-villagers, according to the *Mitāksharā*, is required for the publicity of the transaction merely; but the contract is not invalid without their consent. The consent of neighbours tends to obviate future disputes concerning boundaries. The consent of kinsmen and co-parceners is indispensable when they are united in interest with the vendor. If they are separate from him, their consent is useful because it may obviate any future doubt as to whether they are separate or united, but the want of their consent does not invalidate the transaction. This interpretation of the *Mitāksharā* may be viewed as an instance of the way in which the Indian commentators used to dispose of obsolete laws. At the same time, it shows clearly that anything approaching to pre-emption was entirely foreign to the ideas of such an eminent authority as *Vijānesvara*, the author of the *Mitāksharā*."¹

A few other texts besides the one referred to above occur also in the *Mitāksharā*. They are:—

¹ See also *Vivāda Chintāmaṇi*, translated by P. C. Tagore, p. 809.

(1) "In regard to the immoveable estate, sale is not allowed ; it may be mortgaged by consent of parties interested."¹ This text, like the above, is also anonymous.

(2) The text of Bṛihaspati cited in the *Mitāksharā*, viz. "separated kinsmen, as those who are unseparated, are equal in respect of immoveables, for one has not power over the whole to make a gift, sale or mortgage."

The way in which these two texts have been explained away may be found by a reference to their respective sections in the *Mitāksharā*.

(3) In a passage in the *Mahānirvāṇa*² Tantra the rules of pre-emption are set out thus :—

"The proprietor of immoveable property having a neighbour competent to purchase it is not at liberty to sell such property to another. Among neighbours, he who is a relation or of the same tribe is preferred. In their default, a friend and the will of the seller prevails; even though the price of immoveable property be agreed upon with another, yet if a neighbour pays the price, he is the purchaser and not another. If the neighbour be unable to pay the price or be consenting to the sale, the proprietor is then at liberty to sell it to another. O Goddess ! if immoveable property be sold in the absence of the neighbour, and he (the neighbour) pays the price immediately on hearing of the sale, he is competent to take it. But should the purchaser, having made houses or gardens, be in enjoyment of them, the neighbour is not entitled to take such immoveable property even by paying the price."

¹ Colebrooke's *Mitāksharā*, chap. i, sect. i, 82.

² द्वाहनीशास्त्र, *Slk.* 107 ff., Macnaghten's translation.

The Tantras have never been recognized as authorities on law; neither have these rules been quoted in any current authentic law book. So they have failed to influence the practical law of the present day, and the net result is that, except in Behar and some other provinces of India, the right or custom of pre-emption is not recognized as prevailing among the Hindus; and in the districts where the custom has not been judicially noticed the custom has to be proved in each case.

It is generally inferred from the way in which the commentators explain, or rather explain away, the texts, that it was at the time of the Muhammadans that the right of pre-emption first came to be recognized among the Hindus. Such an inference cannot be supported if we read properly the mental attitude of the commentators. The later the legal authority, the more hostile is he to restraint on alienations of property. It cannot be denied that the rule, that a member of a joint family cannot sell his share in the joint property without the consent of his co-sharers, aimed at a result similar to that which the Muhammadan

law of pre-emption intends to achieve.¹ The provision that a field cannot be sold without the consent of the whole village in particular cases, or without the consent of the family, which certainly existed in ancient times, also points to the same conclusion.²

It is often argued that the absence of a Sanskrit name for pre-emption shows the absence of the custom. Such a position is absurd on the face of it, for what is described at length need not necessarily be named. Besides, in all the cases we have noted, the subject of pre-emption has been subsumed under a more general one which has given its name to the chapter, and so we do not find a Sanskrit equivalent.³

From the above it appears that the custom of pre-emption among the Hindus dates back to a much more ancient period than is generally supposed, and the advent of the Muhammadans

¹ The author of the *Dāyabhāga* sets aside the rule by saying that sales of undivided shares are immoral but valid in law.

² *Vide* E. W. Hopkins's *India Old and New* : Land Tenure in India.

³ The word *प्रधान* in *Manu*, VIII, 899, no doubt implies a right of first-purchase or pre-emption, as Monier Williams calls it, but it is claimed by Government, and in regard to moveables (*भाषावि*); therefore it cannot be called pre-emption proper.

only marks a particular stage in its history. The passages in the Arthaśāstra serve only as evidence of a custom which is much older than the passage itself.¹

Having now seen how a piece of immoveable property was offered for purchase to certain classes of persons in preference to others in the days of Chandra Gupta, let us turn to further stages in the process by which the sale was effected.

The fact of the property being on sale has to be announced publicly in the presence of a large number of men who come from not less than forty neighbouring houses, and who have no personal interest in the sale.²

As immoveable property includes cultivated fields,³ gardens, enclosed spaces, tanks and reservoirs, each of these kinds of property, before being put to sale, has its boundaries

¹ *Vide* in this connexion Sivsarani's *Law of Pre-emption*.

² ततोऽन्ये वाद्यास्त्रामन्त्राचारिभृत्कुळा गृहप्रतिभुषे वेद्य आवधेयुः । सामन्त्राणामहदेषु क्षेत्रमारामं सेतुबन्धं तद्वाकसाधारं वा मर्त्यादाद्यु यथासेतुभागं “अनेनार्थेण कः क्रेता” इति विरा-
दुपितवीतमव्याहृतं क्रेता क्रेतुम् लभेत ।—वाक्यविप्रत्ययः, p. 168.

[For सेतु बन्ध, see p. 60. पुण्यफलवाटवचक्रेदारमूलवापास्-
सेतुः।]

³ See f.n. above.

accurately defined in the presence of the neighbouring village-elders and elderly villagers (सामन्वयानुसारेण).

Then the crier (प्रतिक्रोडा) shouts thrice the following words: **अनेनार्थेन कः क्रोता**, *i.e.* "Who will buy at this price?" thus announcing the price of the property fixed by the seller. The purchaser who accepts the price then enters upon the purchase if the sale be unconditional and not objected to by any claimant.

A tax is levied upon all such sales, and in the event of any increase of price owing to superior natural advantages, the unearned increment goes to the State.¹

The crier is responsible for the collection and payment of the tax on the sale.² Any fraudulent announcement of sale of property of which the seller is not the proprietor is punishable with a fine of 24 panas. No sale

¹ सर्ववाचोर्वा भूखर्चने भूखर्चिः सशुल्का क्रोत्रं मध्येत्
p. 168.

² विक्रयप्रतिक्रोडा शुल्कं दद्यात् । असामिप्रतिक्रोत्रे चतुर्विंशतिपक्षो दण्डः । सप्तराषाहूर्द्धममभिसरतः प्रतिक्रुडो विक्रीचीति । प्रतिक्रुडानि क्रमे वासुनि द्विरती दण्डः, अन्यत्र चतुर्विंशतिपक्षो दण्डः ।—*Ibid.*

can be kept in abeyance for more than a week, within which time the possession must be delivered to the buyer and the sale completed. If the purchaser is by fraud passed over and the property transferred to another, the irregularity is punishable with a fine of 200 paṇas. The punishment for other sorts of fraud is 24 paṇas.

The following restrictions in regard to the sale of immovable property are also to be noticed. Tax-payers (करदाः) can sell their fields to tax-payers alone, and Brāhman̄s can sell their दानदेश or gifted lands to those Brāhman̄s only who are endowed with such lands. Violation of this rule is punishable with the first amercement. Neither can a tax-payer enter on a holding exempted from the payment of taxes. If a tax-payer enters on the holding of another tax-payer, he becomes the owner of the whole property except the house (अगार) of the seller, unless it be given over by express agreement. If a non-taxpayer allows his land to lie fallow, another competent person may enjoy it for five years, after which he has to return the same to the owner after taking due compensation for the improvement made. The non-taxpayer

may live elsewhere, retaining the ownership of his land.¹

It may be noticed in passing that the period of prescription in respect of immoveable properties was usually twenty years, but it does not hold good in the case of the enjoyment of a piece of immoveable property by kinsmen, priests, or by heretics during political disturbances; neither does it apply in cases of mortgage.²

We shall now consider the rules regarding moveables. In the sale of moveables, no elaborate formalities are needed. It appears that in a sale of moveables, property passed by payment of price and delivery of possession.

A refusal to perform a contract of sale, or a refusal to sell an article put for sale by a dealer, was punished with a fine of 12 panas; but if the seller could prove any of the following three pleas he was exempted:—

- (1) That the article in question has defects (दोष).
- (ii) That it has been lost by अपविद्या, *i.e.* has

¹ विवीतवेवपवर्हिंसा, p. 171, etc.

² अज्ञानिद्वन्द्वः, p. 190 ff. Cf. Yājñ., II, 24, 25.

been stolen, or confiscated by the State, or destroyed by flood or fire.¹

(iii) That it has been found on examination to be unacceptable because it does not possess many of the properties originally imputed to it, or because it has been manufactured by diseased persons (बन्धितवत्).

(iv) Another excuse for non-performance of a contract of sale is that a fragile thing contracted for sale to a person cannot be retained longer without detriment to it, and so it has been sold to a third person.

The time allowed for rescission of sale is one night for traders, three for cultivators, and five for cowherds. With regard to the sale of the necessaries of life, however, a period of seven nights is allowed to people of all classes.

A person not accepting an article bought by him is fined 12 paṇas unless his case has any of the excusing grounds mentioned above.²

If diseased or unclean bipeds and quadrupeds are sold as healthy or clean, the seller is fined

¹ Yājñ. uses the words बन्धितवत् and राजहोपवान् while speaking of non-delivery of sold articles.—II, 259.

² विप्रोक्तप्रतीतिवत्, p. 187 ff.

12 paṇas.¹ The time for rescission of sale is three fortnights for quadrupeds, but as regards bipeds no time is expressly mentioned in the text. The rescission rule is applicable in the sale of slaves also, and a period of one year is allowed.

The principle followed in these rescissions is that the judges should try to effect them without detriment either to the seller or the buyer as far as possible.

As regards sale through agents (वै्याहृत्यविक्रय),² the following rules are laid down. Agents selling the merchandise of wholesale dealers at prices prevailing at particular localities and times shall hand over to the wholesale dealers as much of the sale-proceeds and profit as is realized by them. If, owing to the default of the selling agents to sell at the proper place and at the proper time, there be a fall in the prices, the agents shall pay the value and profit at the rate which obtained when they received the merchandise. If, however, the wholesale dealers agree to remit the profits, the agreement

¹ *Ibid.* Cf. Manu, VIII, 222, 223, on Rescission of Sale.

² वै्याहृत्य-विक्रयः,—श्रीपनिषिकम्, p. 179.

will be carried into effect. In case of a fall in the price, the reduced sale-proceeds would be given to the wholesale dealers. If the agents represent that the goods have been destroyed or lost by **अपनिपान** (explained above) or in transmission (**वेच**), and if the representation appears reasonable¹ and trustworthy, and is not contradicted by any official report, then the value of the goods need not be made good to the wholesale dealers. The profit and value of the articles would be calculated after making due allowance for all the necessary wear and tear they undergo if they are sold at a distant future, or at a distant place. If the wholesale dealers are combined in a partnership, then each will take his own share of the value and profit or loss. The rest of the rules are to be supplied from those regarding deposit (**अपनिधि**).

Some of the following rules regarding the fraudulent sale of articles² are wide enough and can cover cases in which sale does not come in ; but as all of them may also apply to cases

¹ **सामान्यवार्तिक**—generally intelligible, *i.e.* reasonable.

² **अज्ञानविनिग्रहः**, p. 189 ff.

where a sale is involved, they have been put here together.

On the detection of a lost article in the possession of a person, the owner will cause him to be arrested by the order of the judge of a court ; if, however, time or place does not permit this process, he can arrest the person himself and realize the article. The judge shall put this question: "How have you got the article?" If he narrates how he got it, but cannot produce the seller, he will be acquitted, but will lose the article. If the seller is produced, he shall pay not only the value of the article but will also be liable for theft. If the seller runs away or hides himself with the article till it is wholly consumed, he shall not only pay its value but also be liable for theft.

After proving his title to the lost article, the owner shall be allowed to take possession of it ; but on failure to prove his title, he is to pay a fine of five times the value of the thing, and the State takes the article. If the owner takes possession of a lost article without obtaining permission of a court, he shall be punished with the first amercement.

Stolen or lost articles, on being detected by persons other than the owner, are to be deposited at *सुल्लक्षण*, *i.e.* the place for the collection of tolls. If no claimant be forthcoming, such an article is taken by the State.

He who proves his title to a lost or stolen biped shall pay 5 paṇas as ransom (*निष्कण*) before taking possession. Likewise, the ransom for a single-hoofed animal (*एकचुरस्य*) is 4 paṇas; for a cow or a buffalo, 2 paṇas; for minor quadrupeds, $\frac{1}{4}$ paṇa; and for precious stones, etc., 5 per cent. of their value.¹

Whatever of the property of his own subjects the king brings from forests or countries of enemies, shall be handed over to its owner. Whatever of the property of his subjects stolen by thieves the king cannot recover, shall be made good by the State. If the king be unable to recover such a thing, he shall allow any person who volunteers to fetch it; otherwise, he shall pay an equivalent compensation to the sufferer.²

¹ Cf. Yājñ, II, 171-177.

² *सुल्लक्षणविष्णुः*, p. 190. A parallel to the liability of the State for compensation to the injured party for loss of the sort mentioned above is to be found in Manu, VIII, 40; Yājñ., II, 87,

Ownership in properties continues though the owner is away from the place where they lie, but the owner who neglects to question the enjoyment of his moveables by another for ten years continuously loses his right therein. The aged and the minors, the diseased and the distressed, the sojourners abroad and those who have forsaken their country for good, are exempt from this rule. The exemption also applies to cases where the assertion of title is prevented by absence due to political disturbances, as also to open and sealed deposits, pledges, treasure-troves, women, boundaries, and articles belonging to the priests and the State.¹

§ 3.—LOANS.

We shall now discuss the subject of loans. The rules regulating loans are justly recognized to be of great importance, for on them depends

275; and Nārada, II, 17. It is interesting to note that a similar provision has also been incorporated in the Manu-Kyay-Damathat of the Burmese law: "If cattle have been stolen, the inhabitants of that district were held liable to which the footmarks of the stolen cattle are traced."—Richardson's Transl., IV, 8, p. 117.

¹ अज्ञानिविह्वयः, अज्ञानिदम्बन्ः, p. 190 ff. Cf. Manu, VIII, 145-149.

to a large extent the economic welfare of the country, राजन्वयोरचेन as Kauṭilya puts it.¹

In those olden days the exploitation by the grinding money-lenders of the necessities of the poor and the needy was checked by a fair rate of interest. The fair rate was determined by the State, which punished all deviations from it.

The legal rate² of interest for a money-lender, as mentioned in the Arthaśāstra, is 1½ p.c. per

¹ अशादानम्, Bk. III, p. 174.

² This rate of interest, viz. 1½ p.c. per month, is also found in the Saṃhitās. The question is whether it was charged on a secured debt or not. Vyāsa is very explicit on this point. He says: "Monthly interest is declared to be an eightieth part of the principal, if a pledge be given; an eighth part is added if there be only a surety; and if there be neither pledge nor surety, two in the hundred may be taken from a debtor of the sacerdotal class" (see Cole's *Digest*, i, 80). Yājñavalkya also makes 1½ p.c. per month the interest on a secured loan, for he enjoins that "on a secured loan the interest every month is one-eightieth part of the principal" (II, 88, M. N. Dutt's ed.). Manu, Vasiṣṭha and Nārada are at one on this point. "A money-lender may stipulate, as an increase of his capital, for the interest allowed by Vasiṣṭha, and take monthly the eightieth part of a hundred" (Manu, VIII, 140, S. B. E.). According to the commentators Kūll., Nār., Bagh., and Nand., the rule refers to a secured debt, but Med. and Gov. think that the rule refers to cases where the creditor is able to live on this interest and is not compelled to take a higher rate for his living. However, the former is the view accepted on all hands, supported as it is by the parallel passages of Yājñ., etc. (see also Cole's *Digest*, i, 24). Vasiṣṭha's text runs thus: "Hear the interest for a money-lender declared by the words of Vasiṣṭha: 5 māshas for

month, *i.e.* 15 p.c. per year. For the reasons given below, it seems that this rate of interest was chargeable on secured debts, the maximum rate allowed on unsecured ones being prescribed

20 kārshāpaṇas may be taken every month; thus the law is not violated" (II, 51, p. 16, S. B. E.). One kārshāpaṇa being equal to 20 māshas, the rate is 1½ p.c. per mensem. Nārada also refers to Vāśiṣṭha: "Let a money-lender take in addition to the principal the interest fixed by Vāśiṣṭha, *viz.* an eightieth part of a hundred in every month" (I, 99, S. B. E.). Bṛihaspati prescribes an eightieth part of the principal to be the interest on it every month (XI, 8, S. B. E.), while Gautama says: "The legal interest for money lent is at the rate of 5 māshas for 20 kārshāpaṇas per month" (XII, 29, S. B. E.). On the strength of the other Saṃhitās, these two passages would no doubt be taken to relate to the case of secured loans. Bau-dhāyana, however, differs from all the above authorities by prescribing a different rate of interest, *viz.* 1 p.c. per month. His rule is that "a sum of 25 kārshāpaṇas shall bear an interest of 5 māshas per mensem" [I, 5, 10—(22), S. B. E.]. He does not expressly apply it to cases of secured debts; but even if it be taken to apply to unsecured loans, the difference from the other Saṃhitās does not cease; for almost all the authorities quoted above, including Viṣṇu and Hārta, expressly mention that the creditor may take 2, 3, 4 and 5 p.c. (and not more) as monthly interest on unsecured loans according to the order of the castes, *e.g.*, a Brāhman debtor has to pay 2 p.c. per month, a Kshatriya debtor 3 p.c. per month, and so on. So Bau-dhāyana is the only dissentient authority in regard to this point.

In view of the general correspondence of the Saṃhitās as to the rule that 1½ p.c. per month is the interest to be charged on a secured loan, I am inclined to take the passage in Kauṭilya, "सपादपत्रा चर्या मासद्विः पचमस्य," as applicable to secured loans. This view gains further support when we take into account the fact that no separate rates of interest are

by the next passage as 5 p.c. per month. But the rate is allowed to increase in view of the risks to which the investment of the money lent, and consequently its realization,

mentioned in connexion with the rules regarding pledges, upon one kind of which, viz. where the thing pledged is used by the pledgee, interests are chargeable; nor are they mentioned in regard to rules about mortgages.

The rate of interest allowed by the *Sanhitās* in the case of the *Śūdra* debtors, viz. 5 p.c. per month, corresponds with that given in the second passage of the *Arthashastra* (अर्थाशास्त्रम्, p. 174, Bk. III): “*वृद्धपक्षा वाचव्यारिकी*”; and as the *Sanhitās* apply the rule to unsecured loans, I am inclined to think that the passage of *Kautilya* mentions the maximum rate allowed in the case of unsecured loans.

Laws restricting the maximum rate of interest are found in many countries both of ancient and mediæval times. In Greece, “the *Seisachthira* of Solon (b.c. 594), according to some ancient writers, included a reduction of the rate of interest, stated by *Plutarch* to have been about 16 p.c. per annum. In the opinion of *Grote*, however, no restriction was put by it upon interest. At *Coreysa*, in the second and third centuries B.C., loans on good security commanded 24 p.c., while the common rate at Athens in the time of the *Orators* was 12 to 18 p.c. . . . Such high rates were exceedingly oppressive to agriculturists, whose fortunes are always precarious” (*Palgrave’s Diet. of Pol. Ec.*).

According to the same authority, “the ancient law of Rome allowed interest which, as usual in agricultural communities, reached an exorbitant height, and popular suffering necessitated a readjustment of debts. The law of the Twelve Tables (b.c. 451–450) first, according to *Tacitus*, limited the rate to one-twelfth part of the capital . . . In b.c. 847 interest was fixed at 5 p.c.; in b.c. 842 it was abolished altogether by the *Lex Genucia*. Although the prohibition of interest long remained law, it was found impracticable . . . The *Lex Unciaria* of the

are exposed. Accordingly, the money borrowed by persons going to forests for trade is allowed to return an interest of 10 p.c. per month, while, on the same principle, the interest payable by the merchants who trade by sea is allowed to mount up to the maximum rate of 20 p.c. per mensem.¹

A disregard of the maximum limits is punished with fines payable not only by the money-lender and the intermediary, but also by the witnesses to the transaction.²

Consuls Sulla and Rufus fixed the rate of interest at 12 p.c. per annum . . . By a decree of the Senate in B.C. 50 this became the legal limit throughout the Roman provinces."

Diodorus the Sicilian, who visited Egypt in the middle of the first century B.C., gives us some information about the early Egyptian law on this point: "For those that lent money by contract in writing, it was not lawful to take usury above what would double the stock, and that payment should be made only out of the debtor's goods, but his body was not to be liable in any wise to imprisonment; and those were counted the debtor's goods which he had either earned by his labour, or had been bestowed upon him by the just proprietors." (Diodorus, vol. i, Bk. I, ch. vi, p. 81: transl. by C. Booth.)

¹ "द्वयस्य कान्धारकायां." Yājñ. uses the word कान्धार in a similar context—

कान्धारनाद्यु द्वयकं सामुद्रा विंशकं व्रतम्

दयुष्यां सङ्गतां दधिं सर्वे सन्धाद्यु जातिदु—II, 89.

² ततः परं कर्तुः कारयितुश्च पूर्वस्यैवसदस्यः । नोत्सामे-
केकं प्रत्यर्षदस्यः ।

The interest on grain in seasons of good harvest shall not exceed more than half its quantity when valued in money; that on the capital contributed by the members of a commercial company shall be one-half of the profit and be payable as each year expires. In case of partners who by long absence or by maladies such as idiocy are disabled from participation in the business, they may be discharged from partnership by being paid twice the amount of their original capital.¹

A person claiming interest when it is not due, or claiming as principal the sum-total of the real principal and interest, shall pay a fine of four times the amount under dispute. False claims were punishable with fines of four times the amount falsified. If both the debtor and the creditor mis-state their claims, the punishment is divided between them in the proportion of 1 : 3.

The following persons were exempted from

¹ The text is चिरप्रवासं सक्षमप्रविष्टो वा मूर्खद्विगुणं दद्यात् । p. 174. It seems that “सक्षमप्रविष्टः” should be “सक्षमप्रविष्टः.” In “वाचस्पत्य,” “सक्षम” has been explained as “अज्ञता,” by which no doubt such maladies as insanity, idiocy, etc., are meant. One suffering from these would be सक्षमप्रविष्टः.

payment of interest: (i) persons engaged in long-continued sacrifices, probably in view of the general good believed to have been produced thereby; (ii) the diseased; (iii) those detained in the house of their preceptor for studies; (iv) minors; and (v) the indigent.

The repayment of debts is also subject to the following rules.¹ The creditor is fined 12 paṇas if he refuses to accept in proper time the sum due, unless the refusal be founded upon some adequate grounds. Moreover, in case of refusal, the sum tendered may be deposited by the debtor with some third person, and no interest accrues upon it for the time subsequent to the date of deposit.

The creditor is liable to a penalty for want of diligence on his part to realize his money within ten years next following the due date; for after this period the loan is barred by limitation. But exceptions are made in favour of (i) the senile, (ii) the diseased, (iii) the dis-

¹ Cf. Yājñ., II, 45: "If a creditor, for the multiplication of his own money, does not take it when offered back by the debtor, and if the latter deposits it with an umpire, interest ceases from that date."

tressed, (iv) minors, (v) sojourners in other countries, (vi) persons who have forsaken their country (देवत्यागी), and (vii) those who are prevented from claiming their dues owing to political or other disturbances.

The sons of a deceased debtor shall repay the principal with the interest thereon. If the deceased have no sons, the debts shall be paid by those who inherit his property; or the debt shall be paid by the surviving joint-debtors if it were contracted jointly with them.¹ Where there are sureties for payment, they shall be held liable.

The rules as to surety for payment of a debt are: A minor cannot stand as surety. If there be no restrictions in the contract of surety as to time or place, it shall be borne by the sons, grandsons, or any persons inheriting the property of the deceased surety in case the debt be not paid by the debtor. They have also to bear the liability of the deceased person as surety in regard

¹ वेत्तस्य पुत्राः कुलीनं ददुः । दायादा वा रिक्त्वहराःसहपा-
चिदः प्रतिशुची वा ।

Cf. Yājñ., II, 51, 52; *Vishnu*, VI, 27, 28 ff.; *Manu*, VIII, 166; *Nārada*, I, 2 ff.; and *Bṛihaspati*, XI, 48 ff.

to (i) personal services, (ii) marriage-dowry, and (iii) transactions concerning immoveable property.

When there are several debts owing by a single person to several creditors, two creditors cannot sue the debtor simultaneously except in the case of resistance by the debtor,¹ and in the suit the order of the debts has to be proved before the court.

No suit for debt can lie between husband and wife, father and son, and brothers of undivided interests. Cultivators and Government servants cannot be apprehended during working hours for debts contracted by them. The wife is not as a rule liable for the debt of her husband even if it be acknowledged by her, except in the case of debts due to herdsmen and cultivators.²

A husband is liable for the debt of his wife, and if he absconds without making any provision for the debt, he shall be fined with the

¹ प्रतिहसान—resisting. (Monier Williams.)

² The meaning of this exception is to safeguard the interests of these useful occupations for the benefit of the public.

The text has अर्धेति. Yājñ. uses the word अर्धेति in (I, 168) in the sense of "a cultivator who takes half the crop for his labour."

highest amercement. If he denies the debt, witnesses are depended upon.¹

§ 4.—DEPOSIT, ETC.

The next item for our consideration in connexion with contract is the law relating to deposits.

There were two kinds of deposit, viz.:—

- (i) Sealed (अपनिधि) and
- (ii) Open (निचेप).

A *sealed deposit*, according to Yājñavalkya, is an article enclosed in a box under seal which the owner delivers into the hands of the depositary without saying anything as to its nature.² An *open deposit* is not put under any cover, and the nature, quality, form, etc., of the

¹ In the Saṃhitās, e.g. in Yājñ., II, 47 and 49; Nārada, I, 18, 19; Bṛihaspati XI, 50, 53; and Viṣṇu, VI, 82, 87, the husband is not as a rule liable for the debt of his wife unless it be contracted for the benefit of the family. Among herdsmen, washermen, hunters, distillers of spirit, etc., the husband is invariably liable for the wife's debt, because "the income of these men depends on their wives, and the household expenses are borne by them also."

² Yājñ., II, 66 (M. N. Dutt's ed.); also Nārada, II, 5 (S. B. E.). Bṛihaspati, XII, 8 (S. B. E.), runs thus: "When a chattel enclosed in a cover and marked with a seal is deposited without describing its nature or quantity and without showing it, it is termed an *aupamādhika* deposit."

The commentary (in Colebrooke, i, 272) on Nārada cited in

article deposited are known to the depositary at the time of making the deposit.

The rules as to sealed deposits apply *mutatis mutandis* to open deposits, and *vice versa*.

The acceptance of deposit is gratuitous, but the depositary is responsible for its safe custody. If he puts it to his own use, he has to pay a compensation (भोगवेत्तव्य) fixed according to the circumstances of the case, in addition to a fine of 12 paṇas. If use by the depositary or his carelessness diminishes the value of the article deposited, the loss has to be made good and the fine doubled. If it be either pledged, sold or wasted by him, a fine¹ is imposed ; if exchanged

the Mitāksharā should be noticed: “‘Nārada cited in the Mitāksharā’: When a thing is deposited under seal, without mentioning its quantity, if its kind and form be unknown, it is considered an *upanidhi*; but the wise call a specified deposit *nikshepa*.

“‘If its kind and form be unknown’: if the depositary know not whether it be gold or silver or what. ‘Under seal’: secured by a private knot to prevent its being taken by another person, or secured by the impression of a seal on which particular letters are engraved; when a thing is so deposited, the bailment of it is *upanidhi*. A specified deposit (or the bailment of a thing of which the quantity, kind and form are mentioned) the wise call *nikshepa*.”

¹ The fine is चतुर्दशपञ्चदश. I have already pointed out the difficulty of giving a meaning to पञ्चदश consistent with its use in other passages, e.g. that at p. 176, Arthasāstra.

or wilfully destroyed, its value is realized from the depositary. He is, however, exempted from liability if the deposit is lost, destroyed or damaged through no laches on his part, *e.g.*¹ by the ravages of hostile kings, wild tribes, or other invaders; by *vis major* such as flood or fire; or, during transit at sea, by the ship sinking or being plundered by pirates.

The deposit must always be returned to the actual depositor; otherwise the depositary is answerable.² If the depositary denies having received the deposit, the antecedent circum-

¹ *प्रेतव्यसनगतं वा नोपनिधितश्चाभवेत्* ॥ (p. 178, *ibid.*). This passage most probably contemplates the destruction of the deposit along with the property of the depositary, in which case neither the deposit nor compensation can be demanded from him by the depositor. This meaning of the passage enables us to distinguish the case from those of destruction of the deposit by *vis major*, etc., at p. 177, which also excuse the depositary from all liability. The interpretation of the passage, viz. "When the depositary is either dead or involved in calamities, the deposit shall not be sued for," is opposed to all reason and justice; for, should not the heirs who get possession of the deposit along with other articles of the deceased, or the depositary himself though involved in calamity, be held responsible for the return of the deposit?

For a parallel to the meaning that seems to me more reasonable, *vide* Nārada as quoted in Colebrooke, i, 282: "What is lost together with the property of the bailee is lost to the bailor; so if it be lost by the act of God or of the king, unless there was a fraudulent act on the part of the depositary."

² *Cf.* Manu, VIII, 185.

stances are examined ; moreover, Kauṭilya by way of example mentions a few dodges which are employed in such cases to find out the truth, and which are similar to those enjoined by Manu. These artifices are meant for the protection of unwary people against the wiles of dishonest depositaries. The artisans, says Kauṭilya, are a class of this sort. They are very clumsy and incautious in their dealings, and make deposits without any evidence, documentary or otherwise. It is for such people specially that the aforesaid procedure is meant. Manu prescribes that "on failure of witnesses, let the judge actually deposit gold with the defendant under some pretext or other, through spies of suitable age and appearance, and afterwards demand it back. If the defendant restore it in the manner and shape in which it was bailed, there is nothing of that description in his hands for which others accuse him. But if he restore not that gold, as he ought, to those spies, then he shall be compelled by force to restore both the deposits."¹ The honesty of the bailee in the second transaction is taken as an index of his integrity in

¹ Manu, VIII, 182-184.

the first. This is the key to the various means mentioned by Kauṭilya for testing the honesty of the bailee. When a defendant denies having received an open deposit, for which there is no evidence, the plaintiff, with the sanction of the judge, takes a few men to the house of the depositary, stations them in a secret part of the house, but within hearing, and then goes to the bailee as if alone; and in the course of conversation with him tries to make him say the truth. The plaintiff may very likely succeed in the attempt, for the bailee does not know that he is being overheard by other people who will bear witness against him. If he unwarily says anything that may favour the plaintiff in his claim, the judge uses it when deposed to by the witnesses.

Another method used to elicit the truth is to employ a spy, who, in the guise of an old, diseased merchant, appears before the defendant depositary as if after a long journey through a forest, or in the middle of his professional tour, and seeks as a measure of relief to leave with him his chattels secretly marked. After some time he sends his brother or son to take back the articles. If they are re-

turned quietly, the bailee proves himself honest; if not returned, he is found guilty in this as well as in the previous transaction and visited with the punishment prescribed for theft.

A third trick employed for the same purpose is that of a spy, in the guise of a respectable gentleman bent on renouncing the world, leaving an article in the hands of the defendant bailee. After a while he returns and claims it. If it is not returned, the bailee is punished as above.

Similarly, a spy may pretend to be a simpleton, and at night represent to the defendant bailee that for fear of being arrested on suspicion by a police officer for carrying an article through the streets, he wishes to leave it with him. Accordingly, he leaves it in his custody. But, in spite of this precaution, a police officer (who seems also to be employed to help him in this artifice) arrests him and puts him in *hâjat*, whence he demands the deposit back. If the bailee restores it, well and good; otherwise, he is punished.

In these cases the chain of transactions by which the article in dispute passed into the

defendant's possession, the validity of those transactions, and the social and financial position of the plaintiff are carefully examined.

These artifices, it seems, were more frequently needed for cases of open deposit than for those of sealed deposit, the reason being that open deposits were often made in a hurry, the depositor having hardly any time or opportunity for taking precautions as to witnesses, etc.¹

Pledge (ऋण).

Kauṭilya does not expressly mention the rules to be followed when the article pledged is used, sold, pledged, lost or misappropriated, but leaves them to be inferred from the allied rules laid down in connexion with deposit. If the pledge be coupled with the condition that it will be used by the pledgee, then the pledgor can release it at any time he likes, and no interest is charged. In other cases the time is limited, and the interest accrues due

¹ The materials for this part of the section have been drawn from Bk. III, pp. 177, 178, 180, 181, except where otherwise indicated.

for the period. A pledgee who refuses to return the pledge when duly demanded back by the pledgor is fined 12 paṇas. If the latter goes to release the pledge at a time when the former is away from home, he can redeem it by paying the money to the elders of the village;¹ or the then value of the pledge being ascertained, it may be left where it is, and interest ceases to accumulate.² If there be an apprehension that the pledge may depreciate, it may be sold, with the permission of the court, in the presence of the superintendents of pledges (अभिषेक), or of special Government officers (for whom, see *infra*³), or in the presence of the pledgor alone.

Mortgage.

A piece of mortgaged immoveable property may be of two kinds, viz. (i) yielding income without any labour, (ii) yielding income after labour being spent on it. When the money lent, as well as its interest, has been realized

¹ Cf. Yājñ., II, 68.

² Yājñ., II, 64.

³ अनाभिविनाशकराः, *lit.* officers who provided against loss or destruction.

from the income of the mortgaged property, it shall be returned to the mortgagor with its value undiminished. If the mortgagee enjoys the mortgaged property without the sanction of the mortgagor, then it shall be returned with compensation for such enjoyment, after the capital lent is realized.¹

The rest of the incidents of mortgage are like those of deposit, with the necessary modifications. As regards the mortgage of lands, the restriction is that the revenue-paying lands can be mortgaged only to holders of such lands, and Brahmadeya (*i.e.* given away to Brāhman̄s) lands only to owners of similar lands.²

Ādeśa (bill of exchange), etc.

Two other forms of contract next engage our attention, viz. *Ādeśa* (आदेश) and *Anvādhi* (अन्वाधि). An *ādeśa* is literally an order, and it seems to mean an order to a third person to pay up a sum of money on behalf of the sender of the order. It is akin to a modern bill of exchange in its simplest form. *Anvādhi* is, as

¹ Cf. Yājñ., II, 68, p. 178, *Arthasāstra*.

² Bk. III, p. 171.

Kâtyâyana puts it, "a bailment for delivery."¹ Its incidents, according to Kauṭilya, are as follows:—If a person entrusted by a merchant with an article for delivery to a third person does not reach the destined place, is robbed on the way by thieves, breaks the article or abandons it, the merchant shall not be responsible; nor the kinsmen of the carrier if he dies on the way. Kauṭilya does not expressly mention other incidents of these two forms of contract, but leaves them to be inferred from those of deposit.

In loan for use (ऋचिबन्धक)² and hire (ऋचकीयक), the article which forms the subject of the transaction has to be returned to the owner in the state in which it was received; but if it be lost or destroyed by lapse of time, by flood, fire or rough transit, by being confiscated by the State or stolen by thieves, it need not be made good.³

¹ Colebrooke, vol. i, p. 278. "Kâtyâyana: 'When a thing is bailed with these directions, viz. deliver this, as by my desire, to such a man when he shall demand it for his own business, it is called *anvâdhi*.'"

² *Vide* Colebrooke, vol. i, p. 278; for fine prescribed for not returning article hired or borrowed, *vide* Bk. III, p. 198, Arthasâstra.

³ Bk. III, Arthasâstra, p. 198, adds: "When a person does not return at the required time or place the property that has been hired or borrowed, pledged or deposited, he is fined 12 *paṇas*."

The rules of *open deposit* apply to these two forms of contract as far as possible.

Contract of service.

People near at hand should be called to witness the nature of the contract between a master and a servant. The wages fixed by mutual agreement shall be paid to the servant, but if no such wages have been fixed, then it will be in proportion to the time spent and the quality and quantity of the work done. If the wages be not settled, a cultivator shall generally obtain one-tenth of the crops grown by his labour, a herdsman one-tenth of the butter clarified by him, and a commercial agent one-tenth of the business transacted by him.¹

Artisans, artists, musicians, physicians, buffoons, etc., shall each get wages like others of his profession, or such wages as will be fixed by experts on evidence adduced. If no evidence be produced, it will be in proportion to the work performed. Fines are imposed for non-payment of wages, as also for denial of wages due.²

¹ Bk. III, p. 188, Arthasāstra.

² *Ibid.*, p. 184.

A servant neglecting or not doing work for which he has been paid is fined 12 paṇas. When incapable of working, or refusing to work on the ground that he is diseased, distressed or that the work is servile, he may get exemption, or take leave to have the work performed by a substitute whose wages will be in proportion to work done by him.¹ An employer refusing to accept the work duly performed by a workman, as also an employee not doing the work for which he has been engaged, is fined 12 paṇas, and the latter must never desert his work for a more lucrative job elsewhere. If an employer does not accept the services of a workman who according to contract presents himself for it, the latter will be deemed to have done his full duty. This is the view of some legal authorities, but Kauṭilya differs from them, and holds that wages should be given only for work actually performed and not for that left completely unfinished. If, however, the employer works the labourer ever so little and then unreasonably dismisses him, the unfinished work will be looked upon as finished and wages cal-

¹ Lines 1 and 2, p. 185 of the text, seem to be defective.

culated accordingly. Variations of time or place are sufficient grounds for the annulment of a contract for service, and any work in excess of what is contracted for goes for nothing.

These rules also apply to workmen who have formed themselves into an association, with this difference that a grace of seven days is allowed them after the fixed period, after which they can have the work done by substitutes. Without the leave of the employer, they must never leave anything in the place of work or remove anything therefrom; for the former offence the fine is 12 paṇas, and for the latter 24. The members of an association may each receive the wages agreed to by him, or may divide the total wages earned by them all equally among themselves.¹

An agricultural labourer refusing to work for the person by whom he has been called from a different place, is fined twice the amount of his wages, and double the price of food and drink with which he may be provided. If he has been called for work in connexion with a sacrificial performance, he is fined twice his

¹ For the above, *vide* Bk. III, pp. 184, 185, Arthasāstra.

wages on his refusal to work. The fines thus realized go to the village fund.¹

Partnership.

(a) Traders or cultivators who engage in work after joining partnership shall apportion among themselves the profits, after the performance of the work in hand and before entering on a fresh one. The performance of work by a substitute does not abate the share of profit due to a partner. The traders shall have shares of profit of the partnership business immediately after the commodities in stock are sold out. The losses sustained by the goods during transmission are to be borne by the partners equally.

A partner deserting his work is fined 12 paṇas, for he cannot withdraw from the business at will after it has been commenced. Theft committed by a partner for the first time should be pardoned and his dues paid; but a second such offence, as also his second untimely withdrawal, causes his expulsion from partnership. In grave offences, he is, in addition, treated as a criminal.

¹ Bk. III, p. 178, *ibid.*

The shares of profits of the partners may be equal or otherwise, according to contract among themselves.¹

(b) Priests officiating at a sacrifice shall share their earnings equally or as agreed to, over and above what may be specially due to each for his portion of work.

In sacrifices like Agnishtoma :—

A priest dying after the rite of Consecration is entitled to one-fifth of what he would have received for his full work.

A priest dying after the rite of Soma-purchase is entitled to one-fourth of what he would have received for his full work.

A priest dying between the rite of Madhyamopasat and end of that of Pravargyodvāsana is entitled to one-third of what he would have received for his full work.

A priest dying after the rite of Maya is entitled to one-half of what he would have received for his full work.

A priest dying after the rite of Prātaḥsavana (libation of Soma during Sutya ceremony) is entitled to three-fourths of what he would have received for his full work.

¹ For the above, *vide* Bk. III, pp. 185, 186, Arthaśāstra.

A priest dying after the rite of Madhyandina is entitled to the whole share, for by that time the sacrificial fees are all paid.

In every sacrifice except Bṛihaspatisavana the sacrificial fee is paid.

The above rules also apply to the fees paid during the series of sacrificial days called Ahargaṇa.

During the ten days immediately following the death of an officiating priest, his work is performed either by those who are given their dues from the remnants of the offerings after the share of the deceased is paid, or by those who enjoyed his confidence.¹

The death of the sacrificer himself must not put an untimely stop to the sacrifice: the priests are bound to finish it. The desertion of a priest or a sacrificer, one by the other, is punished with the first amercement. If the priest be a Brāhmaṇ who does not maintain a perpetual sacred fire, he is fined 100 paṇas, while the head priest and the sacrificer are each fined 1000 paṇas for such offence.

¹ The time-limit is ten days, because the near relatives of the deceased remain in mourning during the period. They continue the work after the lapse of the period.

As a sacrifice is defiled if an officiating priest happens to be the husband of a Śûdra wife, a thief, spirit-drinker, Brâhmaṇ-slayer, violator of teacher's bed, or receiver of condemned gifts, it is no offence to dispense with his services.¹

Contracts of common interest.

If preparations are made for a public entertainment, an individual may help it up at will, either by subscription or otherwise; but in case he does not join it, then he and his dependents lose the right of enjoying it. Seeing or hearing stealthily at the place of entertainment is punishable with fines.²

¹ For the above, *vide* Bk. III, p. 186, Arthasâstra.

² Bk. III, p. 178, Arthasâstra.

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