

UNIVERSAL
LIBRARY

OU_154469

UNIVERSAL
LIBRARY

OSMANIA UNIVERSITY LIBRARY

Call No. 617.91

Accession No. 3144

Author

M955v2
Mukhopadhyaya

Title

Surgical Instruments of the Hindus.

This book should be returned on or before the date last marked below.

THE
Surgical Instruments of the Hindus

THE
SURGICAL INSTRUMENTS
OF THE HINDUS

WITH

**A Comparative Study of the Surgical Instruments of
the Greek, Roman, Arab and the Modern
European Surgeons**

BY

GIRINDRANĀTH MUKHOPĀDHYĀYA, B.A., M.D.

*Fellow of the Calcutta University, McLeod Gold Medalist in Surgery, Formerly
Lecturer on Surgery, Calcutta Medical School and College of Physicians
and Surgeons (Bengal), Member of the Asiatic Society of Bengal,
Life Member and Professor of Botany, Indian Association
for the Cultivation of Science, Examiner,
Calcutta University.*

Griffith Prize Essay for 1909

In Two Volumes

Vol. II

396 Illustrations in 82 Plates

Published by the Calcutta University

1914

PRINTED BY ATULCHANDRA BHATTACHARYYA
AT THE
CALCUTTA UNIVERSITY PRESS
Senate House, Calcutta.

PREFACE

Much trouble has been taken with our illustrations, but the author is fully conscious of their many defects. I am greatly indebted to several authors mentioned in the legends to the plates as the readers will find certain of their illustrations copied in this volume. It was found necessary in a comparative study of the surgical instruments used by the different nations of the world. It has been my wish to render due credit to all persons for the illustrations by which they may severally have contributed to the advancement of our knowledge of the subject, and I have never assumed to myself drawings, which belong to others. For those illustrations, not otherwise acknowledged, the author is solely responsible.

For his skill and patience in drawing and printing these figures I am glad to take this opportunity of thanking Mr. K. V. Seyne.

The author deems it a pleasant duty to express his thanks to the University of Calcutta for the liberality displayed in the matter of illustrations.

80, RUSSA ROAD NORTH,
Calcutta, February, 1914. } G. N. MUKHOPĀDHYĀYA.

ABBREVIATIONS

- Adams : The Genuine Works of Hippocrates. Translated by Francis Adams, LL.D. in two volumes. (Sydenham Society).
- A. H. : Catalogue of Surgical Instruments and Appliances. Allen and Hanburys Ltd. 1903.
- A. S. : Catalogue of Surgical Instruments and Appliances. Arnold and Sons. 1895.
- Anderson : See Wellcome.
- B. B. : Surgical Instruments and Appliances. Burgoyne, Burbidges & Co.
- C. C. G. : Collection de Chirurgiens Grecs. Bibliothèque Nationale. Paris.
- Erichsen : The Science and Art of Surgery. By Sir John Eric Erichsen Bt., F.R.S., LL.D. Tenth Edition. 1895.
- Esmarch : The Surgeon's Handbook of the Treatment of Wounded in War. By Dr. Friedrich Esmarch.
- Heath : Minor Surgery and Bandaging. By C. Heath, F.R.C.S. Second Edition.
- I. M. G. : Indian Medical Gazette, 1904.
- K. S. : Catalogue of Surgical Instruments. Kny-Scheerer & Co.
- Milne : Surgical Instruments in Greek and Roman Times. By T. S. Milne, M.A., M.D., 1907.
- Porter : The Surgeon's Pocket-Book. The Best Treatment of Wounded in War. By Surgeon-Major T. H. Porter. 1891.
- Princep : Princep's (Thomas') Indian Antiquities.

- Swain : Surgical Emergencies. By W. P. Swain,
F.R.C.S. Third Edition. 1880.
- Thakore Saheb : History of Aryan Medical Science. By H. H.
Sir Bhagvat Singh Jee., K.C.I.E., M.D.,
D.C.L., LL.D., F.R.C.P.E. Thakore Saheb
of Gondal. 1896.
- Waggett : Diseases of the Nose. By E. B. Waggett,
M.A., M.B., B.C. 1907.
- Wellcome : Third Report of the Wellcome Research
Laboratories at the Gordon Memorial College,
Khartoum.
- White : The Veterinary Art. By James White. 1851.
-

CORRECTIONS

Page	37	Plate	XIX	Fig.	5	Read	Samipatra	for	Amipatra.
"	88	"	XLIV	"	2	"	3	"	2
"	88	"	XLIV	"	3	"	2	"	3
"	103	"	LII	"	209	"	4	"	209
"	108	"	LIV	"	5	"	6	"	5
"	108	"	LIV	"	6	"	5	"	6
"	157	"	LXXIX	"	5	"	5	before	—.

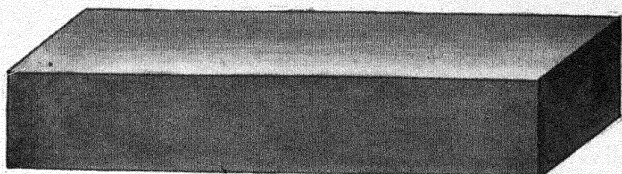
THE SURGICAL INSTRUMENTS OF THE HINDUS.

PLATE I.

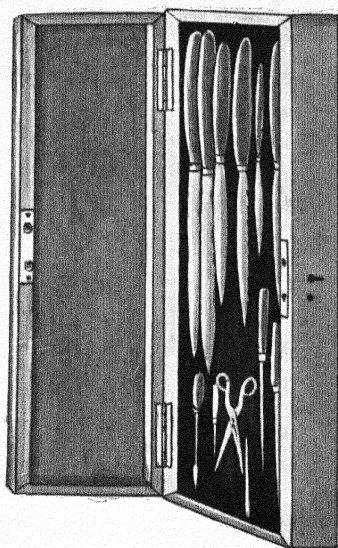
FIGURE.		PAGE.
1.—Śilā or Whetstone	... ..	80
2.—Instrument box	... ..	80
3.—Instrument box of the Greeks.		
Milne. Plate IV.	... ..	80
4.—Instrument box (modern) A. H. Fig. 223	... ..	80

The Surgical Instruments of the Hindus.

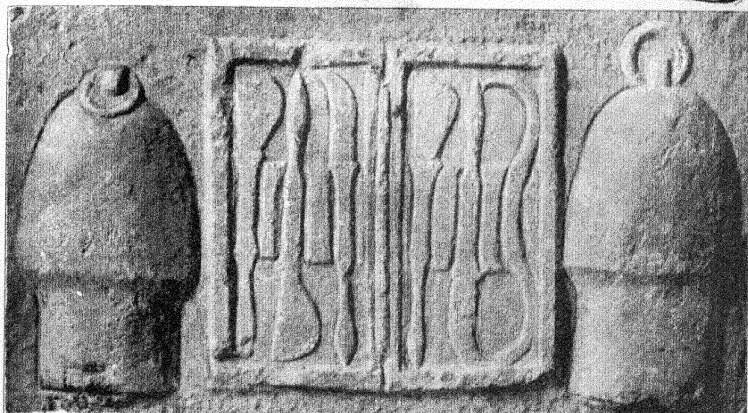
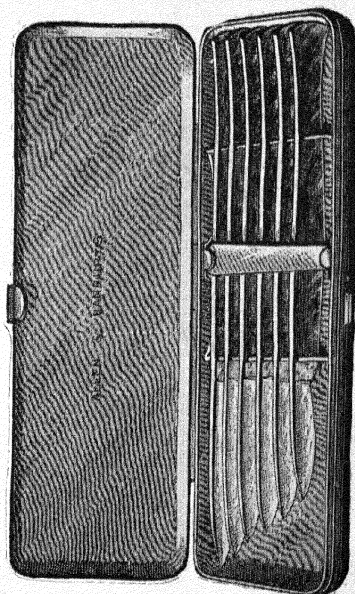
Plate I.



1



2



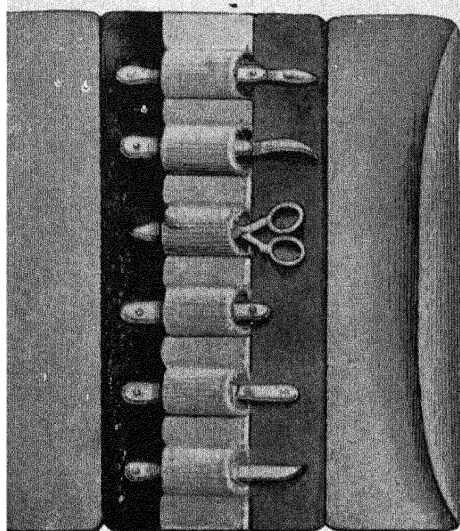
4

PLATE II.

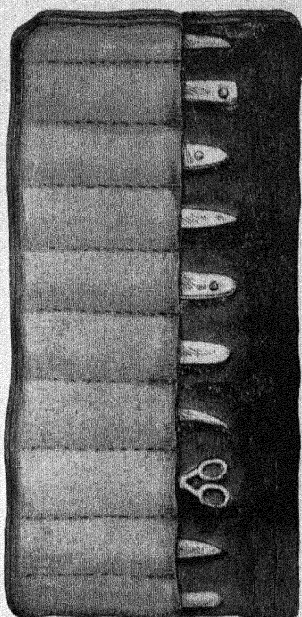
FIGURE.	PAGE.
1.—Śastrakośa or Instrument case of leather	... 80
2.—Śastrakośa as used by the barbers of India in the present time	... 80
3.—Modern Instrument case. A. H. Fig. 568.	... 80

The Surgical Instruments of the Hindus.

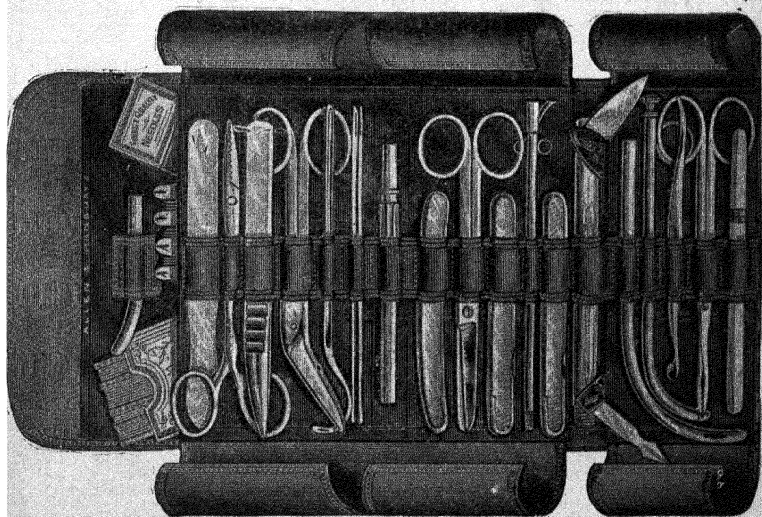
Plate II.



1



2



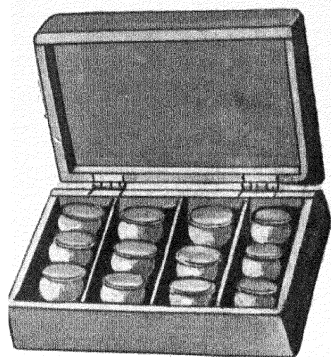
3

PLATE III.

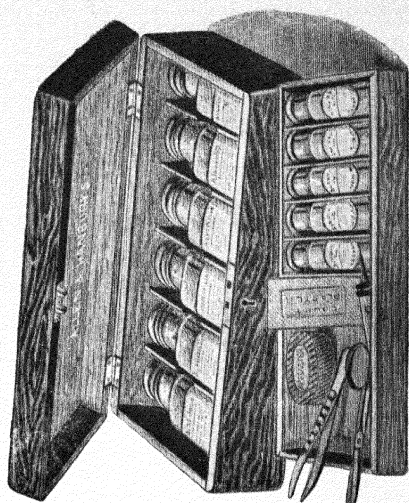
FIGURE.		PAGE.
1.—Box for Ointment pots ...	...	82
2.—Box for Medicine (Modern) A. H. Fig. 9740	...	82
3.—Medicine Box. Greek. Milne. Pl. LIV	...	82
4.—Ointment Sticks in case ...	...	83
5.—A case for probes (Modern) A. II. Fig. 1715.	...	83

The Surgical Instruments of the Hindus.

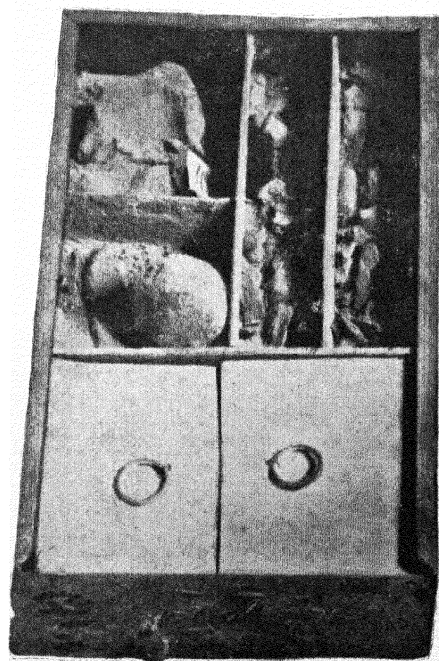
Plate III.



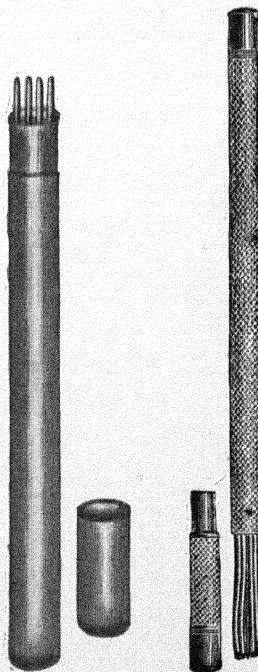
1



2



3



4

5

PLATE IV.

FIGURE.	PAGE.
1.—Bag with shoulder strap containing the Medicine boxes and Instrument cases	... 85
2.—Bag with Instruments (Modern) A. H. Fig.	... 84
3.—Operation Table	... 86
4.—Operation Table (Modern) A. H. Fig.	... 86
5.—Jānumātrāsana or Operation stool	... 86
6.—Operation stool (modern). A. H. Fig. 90.	... 86

The Surgical Instruments of the Hindus.

Plate IV.

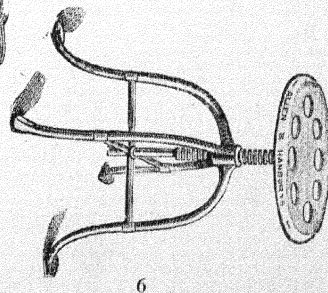
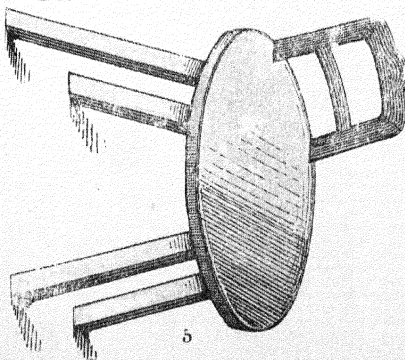
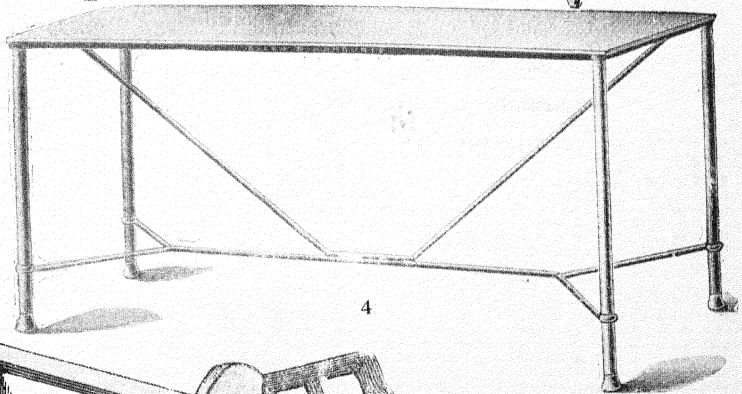
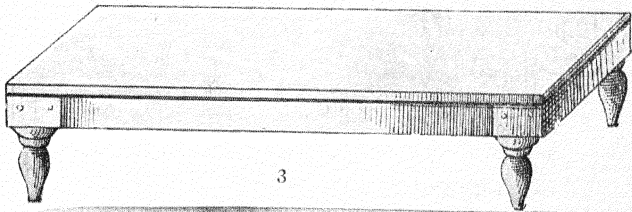
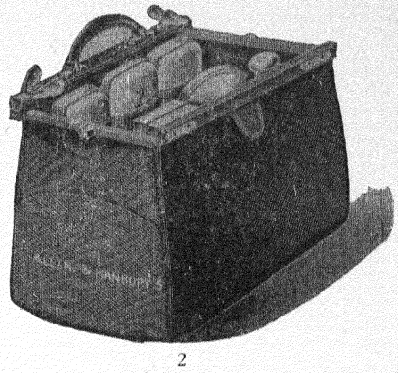
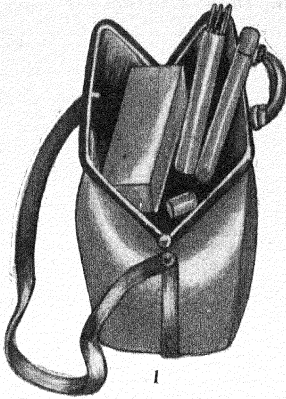


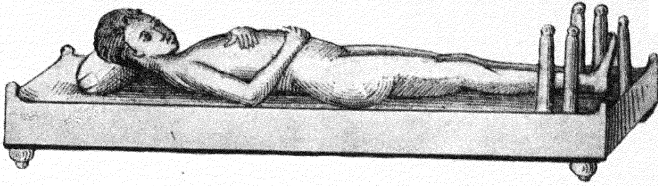
PLATE V.

KAPĀṬA-ŚĀYANA OR FRACTURE-BED OF THE HINDUS.

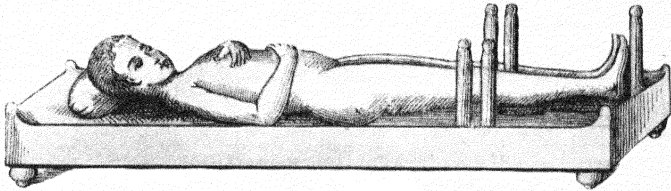
FIGURE.	PAGE.
1.—Kapāṭa-Śāyana for fracture of the bones of the leg. 5 pegs: 2 on each side of the ankle, one supports the foot ...	87
2.—Kapāṭa-Śāyana for fracture of the thigh bone. 5 pegs: 2 on each side of the knee-joint, one under the foot ...	87
3.—Kapāṭa-Śāyana for fracture of the thigh bone or dislocation of the hip-joint. 5 pegs: 2 on each side of the hip joint, one under the foot ...	87

The Surgical Instruments of the Hindus.

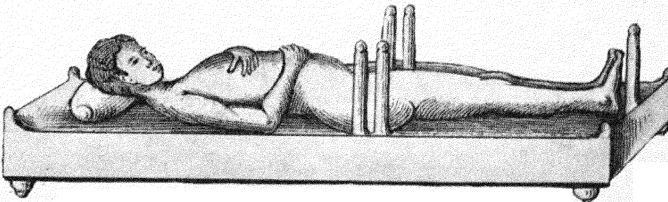
Plate V.



1



2



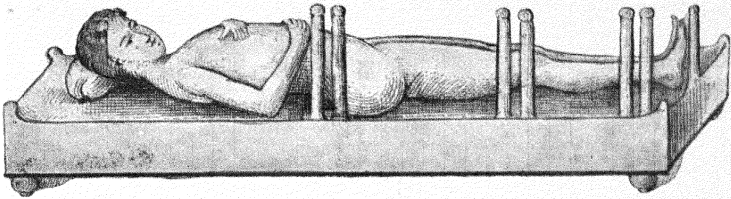
3

PLATE VI.

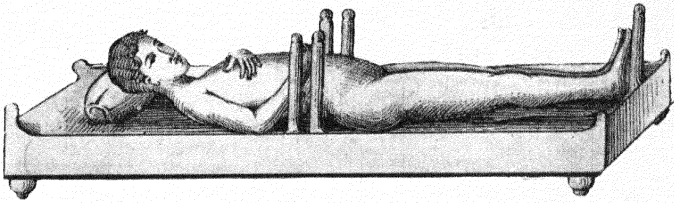
FIGURE.	PAGE
1.—Kapāṭa-Śayana for a double fracture of the thigh bone and bones of the leg. 7 pegs: 2 on the outer side of the hip, knee and ankle joints respectively, one under the foot	... 87
2. Kapāṭa-Śayana for fracture and dislocation of the spinal column. 5 pegs: 2 on each side of the spine, one under the foot	... 87
3.—Kapāṭa-Śayana for fracture and dislocation of the bones of the thorax. 5 pegs: 2 on each side of the chest, one under the foot	... 87
4.—Kapāṭa-Śayana for fracture and dislocation of the clavicle. 5 pegs: 2 on each side of the shoulder joint, <i>i.e.</i> , 2 on the outer side of the shoulder and 2 in the axilla, one under the foot	... 87

The Surgical Instruments of the Hindus.

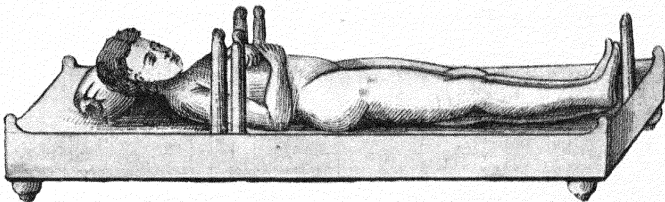
Plate VI.



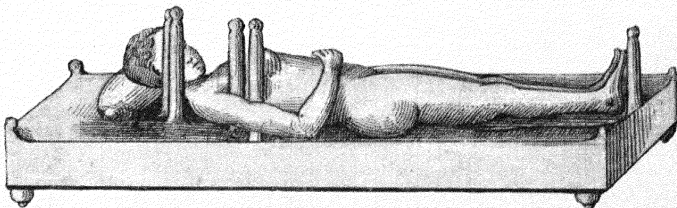
1



2



3



4

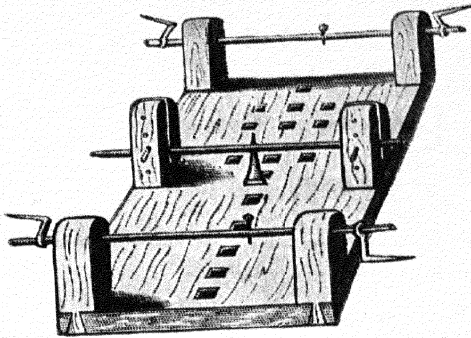
PLATE VII.

FIGURE.	PAGE.
1.—The Scamum Hippocratis <i>or</i> Bench of Hippocrates, as represented by Andreas a Cruce (<i>Officina Chirrugica venetiis</i> , 1596)	... 88
2.—The same as represented by M. Littré	... 88
A. A board, 6 cubits long, 2 broad and 12 inches thick ; not 13 as incorrectly stated by M. Littré.	
B. The feet of the Axles, which are short.	
CC. Axle-trees.	
DD. Grooves 3 inches deep, 3 broad, separated from one another by 4 inches.	
E. A small post <i>or</i> pillar, fastened in the middle of the machine in a quadrangular hole.	
F. Pillars a foot long.	
G. A cross-beam laid on the pillars FF, which can be placed at different heights by means of holes in the pillars.	

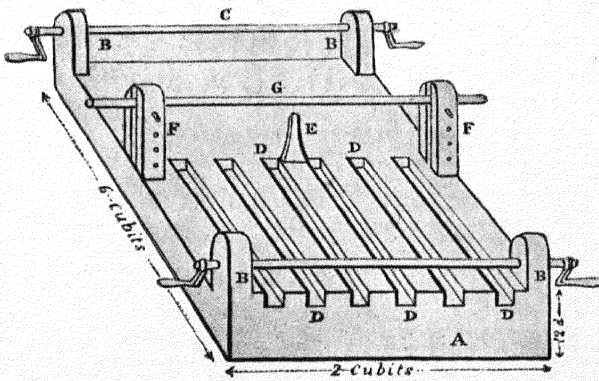
Adams. Vol. II. Pl. IV. Fig. 1 & 2.

The Surgical Instruments of the Hindus.

Plate VII.



1.



2

2.

PLATE VIII.

FIGURE.	PAGE.
1.—Representation of the mode of reducing dislocation of the thigh outwards, as given by M. Littré (Œuv. d'Hipp., tom. iv, p. 305) ...	89

A mistake in the figure given by M. Littré is here corrected.

A. A lever applied to the nates of the luxated side, and acting from without inwards, in order to bring the head of the bone into its cavity.

B. Another lever, held by an assistant, put into one of the grooves of the machine, and intended to act against lever A.

C. Groove in which the end of the lever A takes its point of support.

D. The luxated member.

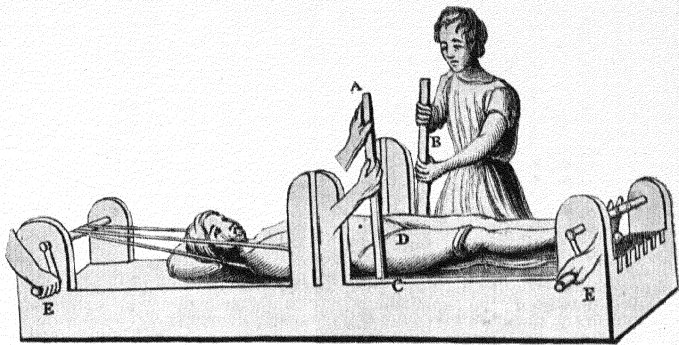
EE. Extension and counter-extension.

Adams. Vol. II. Pl. V. Fig. 1.

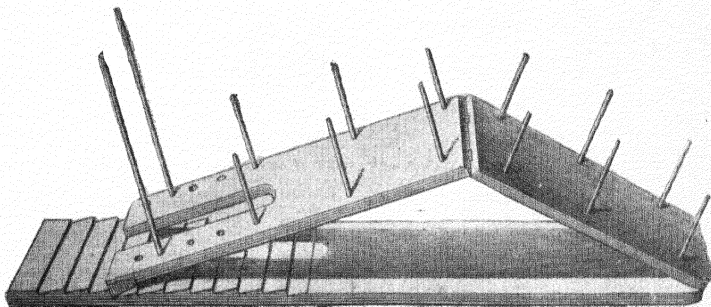
2.—The double inclined plane (Planum inclinatum duplex) framed out of some boards and provided at the sides with wooden pegs, by which the borders of the quilled horse hair mattress, supporting the leg, are pressed against the limb, Esmarch. Fig. 201 ...	89
--	----

The Surgical Instruments of the Hindus.

Plate VIII.



1.



2.

PLATE IX.

FIGURE.	PAGE.
1.—Banc d'Hippocrate, d'après Rufus, servant à réduire différentes luxations. C. C. G. Pl. XCV.	89

The Surgical Instruments of the Hindus.

Plate IX.

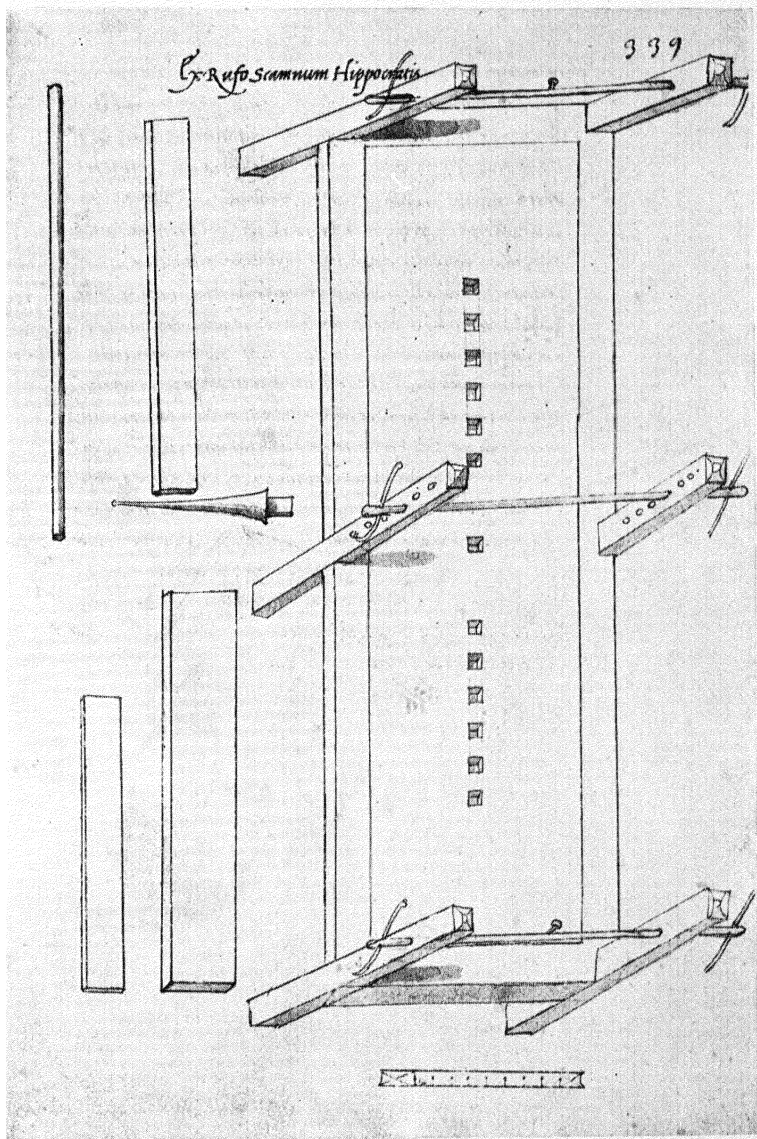


PLATE X.

FIGURE.

PAGE.

- 1.—Plinthium, ou cadre de Nileus, d'après
Héliodore. C. C. G. Pl. LXXIII 89

The Surgical Instruments of the Hindus.

Plate X.

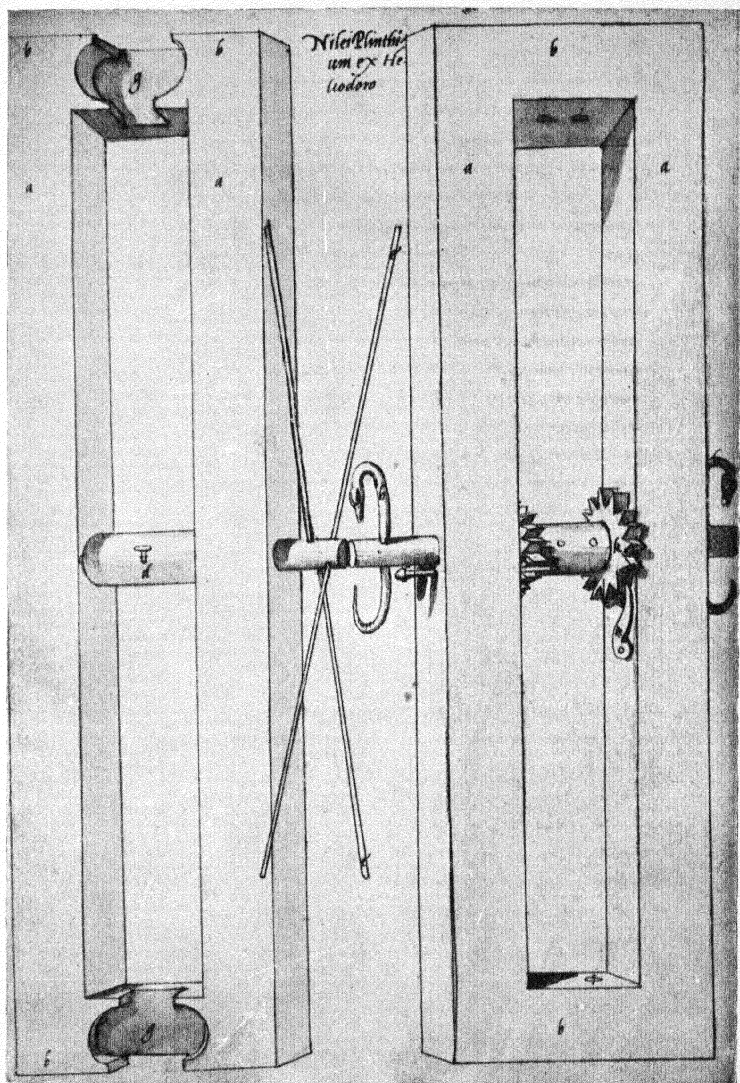


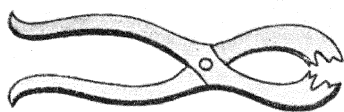
PLATE XI.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

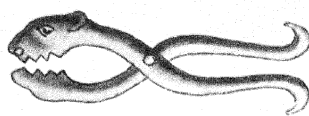
FIGURE.	PAGE.
1.—Simhamukha Svastika, or Lion forceps, after Thakore Saheb	101
2.—Simhamukha Svastika	101
3.—Lion forceps (Fergusson's) A. H. Fig. 1052. ...	101
4.—Vyāghramukha Svastika, or Tiger forceps, after Thakore Saheb	102
5.—Vyāghramukha Svastika	102
6.—Vṛkhamukha Svastika, or Wolf forceps, after Thakore Saheb	102
7.—Vṛkhamukha Svastika	102
8.—Tarakṣumukha Svastika, or Hyena forceps, after Thakore Saheb	102
9.—Tarakṣumukha Svastika	102

The Surgical Instruments of the Hindus.

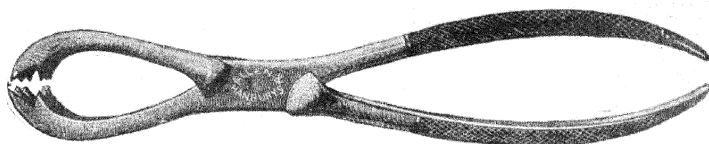
Plate XI



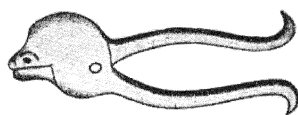
1



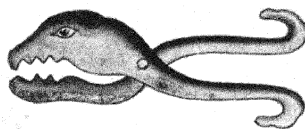
2



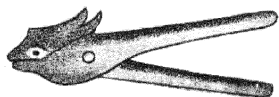
3



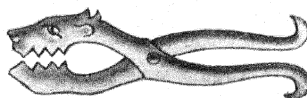
4



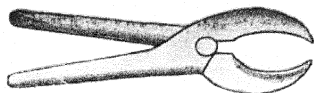
5



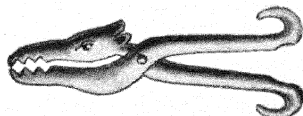
6



7



8



9

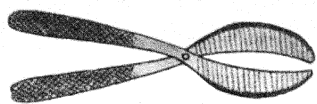
PLATE XII.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

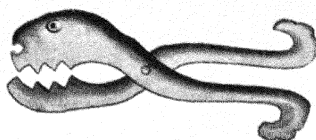
FIGURE.	PAGE.
1.—Rkṣamukha Svastika, or Bear forceps. After Thakore Saheb	102
2.—Rkṣamukha Svastika	102
3.—Dvīpimukha Svastika, or Panther forceps	102
4.—Mārjāramukha Svastika, or Cat forceps	102
5.—Śṛgālamukha Svastika, or Jackal forceps	102
6.—Airbbārukamukha Svastika, or Deer forceps	102
7.—Makaramukha Svastika, or Crocodile forceps	102
8.—Mathieu's Aural forceps, with crocodile mouth A. H. Fig. 1993.	102

The Surgical Instruments of the Hindus.

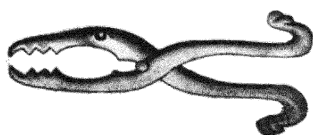
Plate XII.



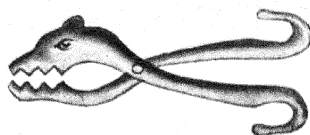
1



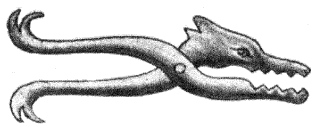
2



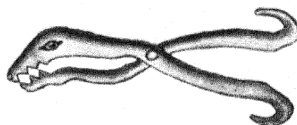
3



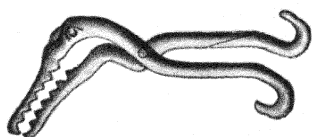
4



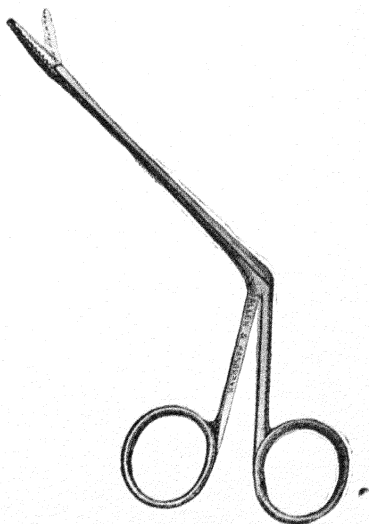
5



6



7



8

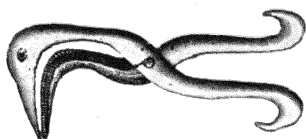
PLATE XIII.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

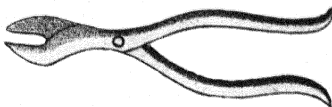
FIGURE.	PAGE.
1.—Kākamukha Svastika, or Crow forceps	... 103
2.—The same, after Thakore Saheb	... 103
3.—Kaṅkamukha Svastika, or Heron forceps	... 103
4.—The same, after Thakore Saheb	... 103
5.—Kuraramukha Svastika, or Osprey forceps	... 103
6.—Cāsamukha Svastika, or Blue-Jay forceps	... 103
7.—Bhāsamukha Svastika, or Eagle forceps	... 103
8.—Śāsaghātī mukha Svastika, or Hawk forceps	... 103

The Surgical Instruments of the Hindus.

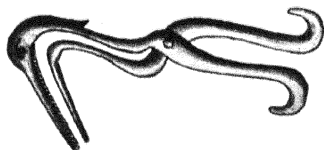
Plate XIII.



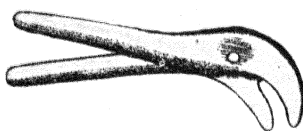
1



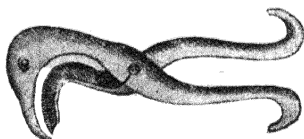
2



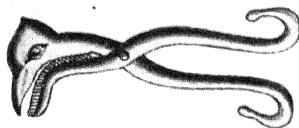
3



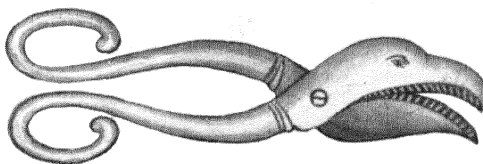
4



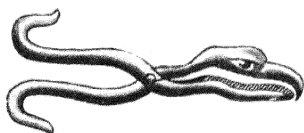
5



6



7



8

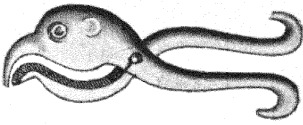
PLATE XIV.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

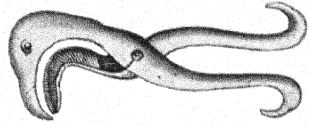
FIGURE.	PAGE.
1.—Ulukamukha Svastika, or Owl forceps	... 103
2.—Cillimukha Svastika, or Kite forceps ...	... 103
3.—Śyenamukha Svastika, or Vulture forceps, after Thakore Saheb ... ..	... 103
4.—Gṛdhramukha Svastika, or Falcon forceps	... 103
5.—Krauñcamukha Svastika, or Curlew forceps	... 103
6.—Bhṛṅgarājamukha Svastika, or Butcher-bird forceps, after Thakore Saheb ...	... 103
7.—Greek forceps for extracting bone. Adams. Vol. I. Pl. III. Fig. 9. ... ..	... 103

The Surgical Instruments of the Hindus.

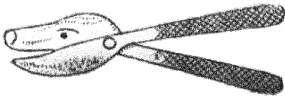
Plate XIV.



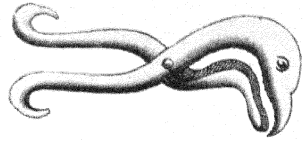
1



2



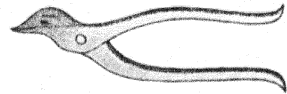
3



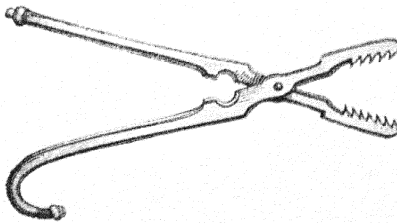
4



5



6



7

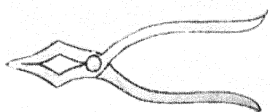
PLATE XV.

THE SANDAMŚA OR PINCHER-LIKE INSTRUMENTS.

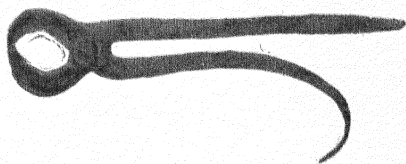
FIGURE.	PAGE.
1.—SĀḌĀSĪ or Blacksmith's forceps	106
2.—Blacksmith's tongs. Milne, Pl. XLII. Fig. 2. ...	106
3.—Sandamśa Yantra, or Forceps with arms, after Thakore Saheb	104
4.—Sonnā, or Forceps without arms, Goldsmith's forceps	106
5.—Forceps with smooth ends	104
6.—Forceps with rough ends	104

The Surgical Instruments of the Hindus.

Plate XV.



3



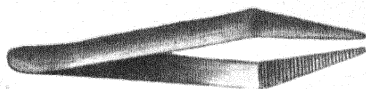
2



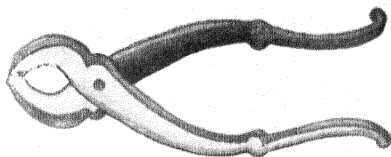
4



5



6



1

PLATE XVI.

THE SANDAMŚĀ YANTRA OR PINCHER-LIKE INSTRUMENTS.

FIGURE.	PAGE.
1.—Epilation forceps 	105
2.—Epilation forceps. Milne. Pl. XXVI.	
Fig. 3 	105
3.—Epilation Forceps (modern) ...	105
4.—Depilatory forceps (modern) A. S. Fig. 2891	105
5.—Mucutī Yantra 	105
6.—Mucutī Yantra, after Thakore Saheb	106
7.—Mucundī 	106
8.—The Dressing forceps, (Mason's) A. H. Fig.	106

The Surgical Instruments of the Hindus.

Plate XVI.



1



2



3



4



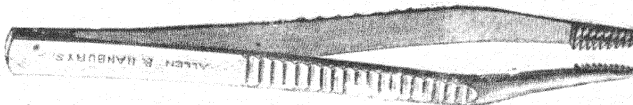
5



6



7



8

PLATE XVII.

THE TĀLA YANTRA OR PICK LOCK-LIKE INSTRUMENTS.

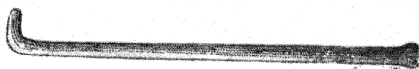
FIGURE.		PAGE.
1.—Ekatāla Yantra	... ..	107
2.—Ekatāla Yantra	... ..	107
3.—Dvitāla Yantra	... ..	107
4.—Ekatāla and Dvitāla,	after Thakore Saheb	107
5.—Ear Scoop (modern)	... ..	107
6.—El. Malahga or Ear spoon used in Kordofan.		
Anderson. Fig. 41. Wellcome.	... ..	107

The Surgical Instruments of the Hindus.

Plate XVII.



1



2



3



4



5



6

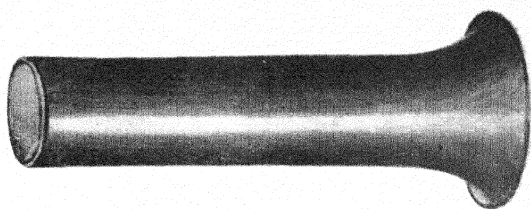
PLATE XVIII.

THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

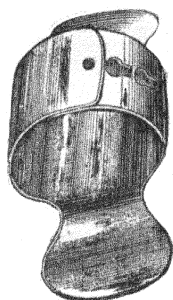
FIGURE.	PAGE.
1.—Kañṭhya Śalyāvalokinī or Throat Speculum ...	109
2.—Mouth Speculum (Modern) B. B. Fig. 353 ...	109
3.—Pañchamukha or Speculum with 5 holes ...	110
4.—Trimukha or Speculum with 3 holes ...	110
5.—Śalyanirghātaṇī ...	111

The Surgical Instruments of the Hindus.

Plate XVII.



1



2



3



4



5

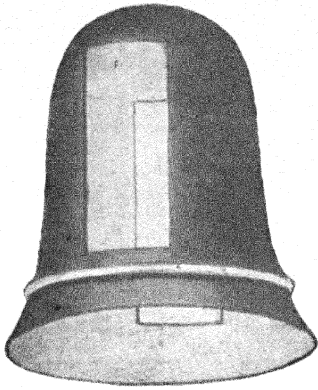
PLATE XIX.

THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

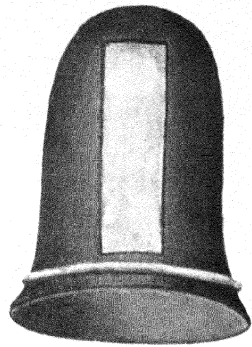
FIGURE.	PAGE.
1.—Arśa Yantra, or Tubular instrument for piles ...	112
2.—The same (Vāgbhaṭa)	113
3.—The same, after Thakore Saheb ...	112
4.—Śamī Yantra	113
5.—Āmipatra Yantra, after Thakore Saheb ...	113
6.—Fergusson's Rectal Speculum (Modern) B. B. Fig. 999	113

The Surgical Instruments of the Hindus.

Plate XIX.



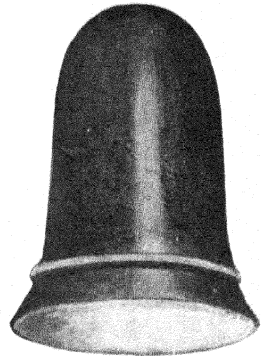
1



2



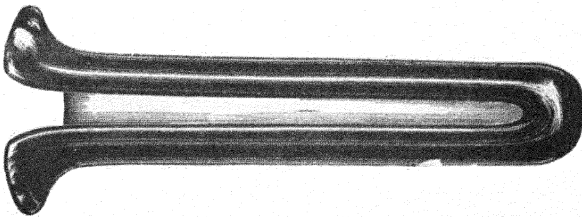
3



4



5



6

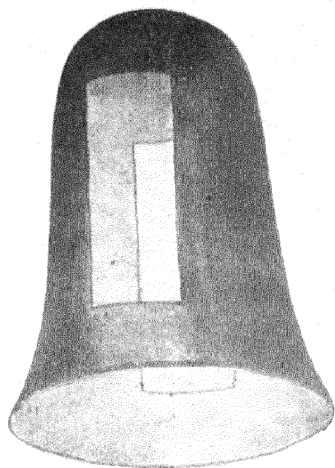
PLATE XX.

THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

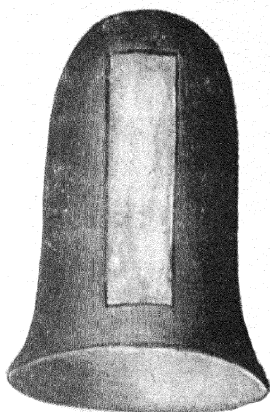
FIGURE.	PAGE.
1.—Bhagandara Yantra, or Tubular Instruments for Fistula-in-ano, with two slits ...	114
2.—The same, with one slit	114
3.—Nāḍī Yantra, after Thakore Saheb	114

The Surgical Instruments of the Hindus.

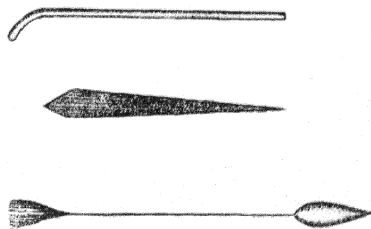
Plate XX.



1



2



3

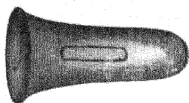
PLATE XXI.

NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

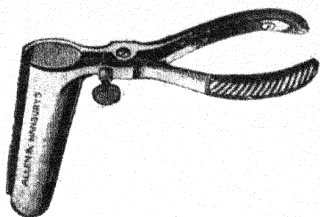
TUBULAR INSTRUMENTS FOR NOSE.

FIGURE.	PAGE.
1.—Nasal Speculum	115
2.—Nasal Speculum (modern). A. H. Fig. 2553. ...	115
3.—Nasal Tube	115
4.—Nasal Insufflator (modern) A. H. Fig. 3491. ...	116
5.—Nāthukaraṇī or single nose-spoon ...	84, 116
6.—Yamaka Nāthukaraṇī or double nose-spoon	85, 117
7.—Nasal splints	117
8.—Langenbeck's nasal plugs (modern). A. S. Fig. 837.	117

The Surgical Instruments of the Hindus.
Plate XXI.



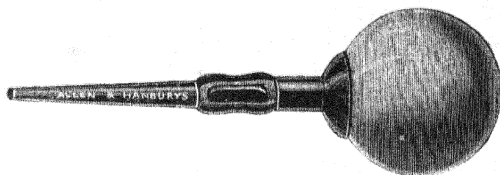
1



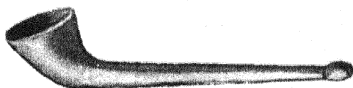
2



3



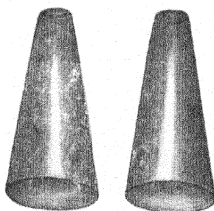
4



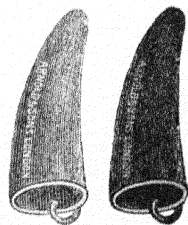
5



6



7



8

PLATE XXII.

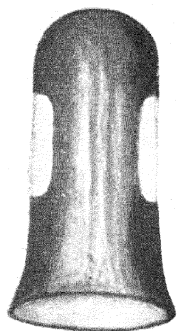
THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR FINGER.

FIGURE.	PAGE.
1.—Aṅguli Trāṇaka or Finger-guard ...	118
2.—Aṅguli Yantra or Finger-guard, after Thakore Saheb ...	118
3.—Finger-guard (modern) A. S. Fig. 805.	118
4.—Finger-guard (modern) A. H. Fig. 2326.	118

The Surgical Instruments of the Hindus.

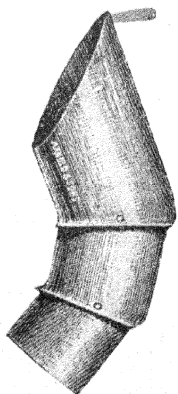
Plate XXII.



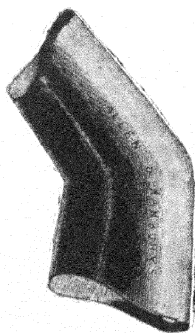
1



2



3



4

PLATE XXIII.

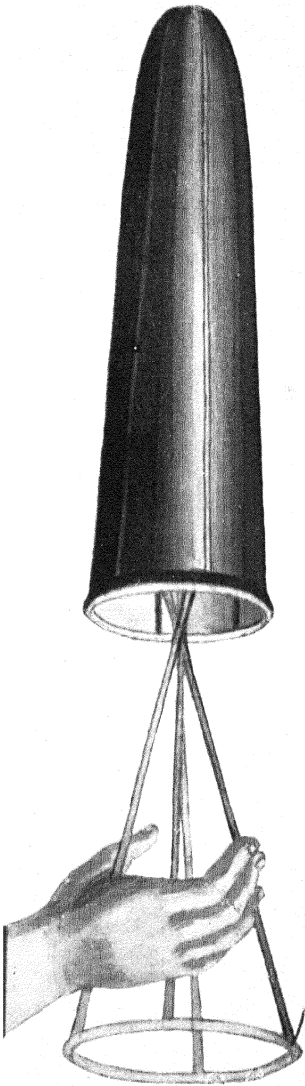
NĀḌĪ YANTRĀ OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR VAGINA.

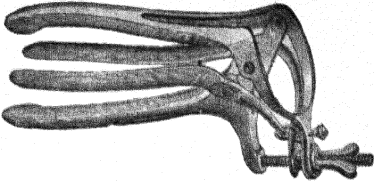
FIGURE.	PAGE.
1.—Joni-Vraṇekṣaṇa or Vaginal Speculum	... 119
2.—Nott's Quadrivalve Speculum (modern)	
K. S. Fig. 8847.	... 119
3.—Yonyāvek-ṣaṇa Yantra or Bivalve speculum, after	
Thakore Saheb	... 119
4.—Fergusson's Vaginal Speculum. A. II. Fig. 6103	119

The Surgical Instruments of the Hindus.

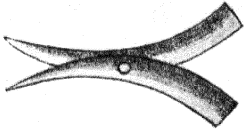
Plate XXIII.



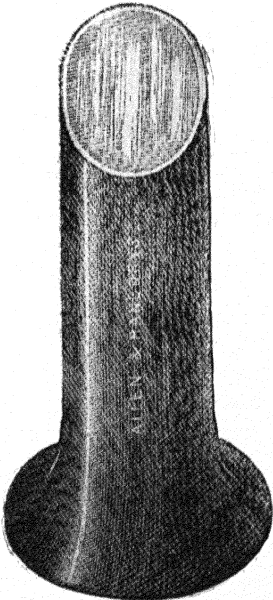
1



2



3



4

PLATE XXIV.

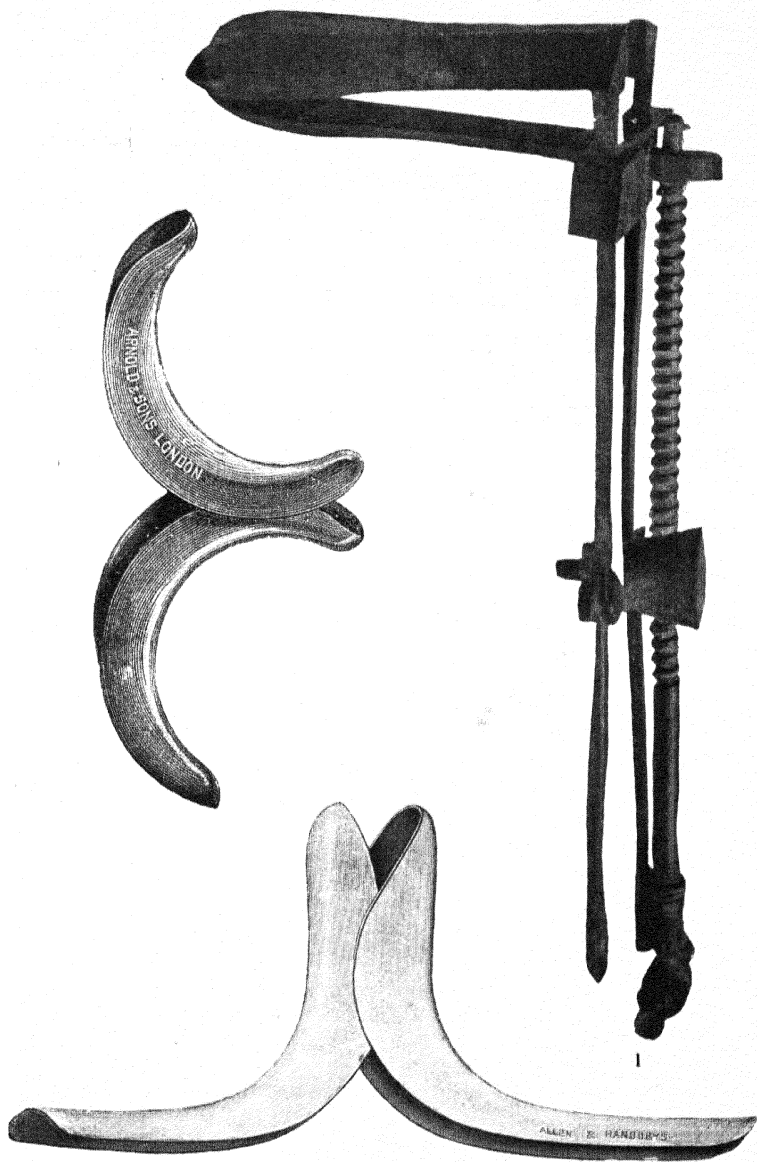
THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR VAGINA.

FIGURE.	PAGE.
1.—Trivalve Vaginal Speculum, after Milne. Pl. XLVIII. (Naples Museum) ...	... 119
2.—Barnes' Speculum. A. S. Fig. 1648. ...	... 119
3.—Neugebaur's Vaginal Speculum. A. II. Fig. 6103.	119

The Surgical Instruments of the Hindus.

Plate XXIV.



3

PLATE XXV.

NĀDĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR WOUND.

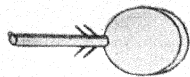
FIGURE.		PAGE.
1.—Vraṇa-Vasti or Wound-Syringe	...	121
2.—Vrinapraksalana Yantra, after Thakore Saheb	...	121
3.—Wound-Syringe (modern) A. S. Fig. 2790.	...	121

The Surgical Instruments of the Hindus.

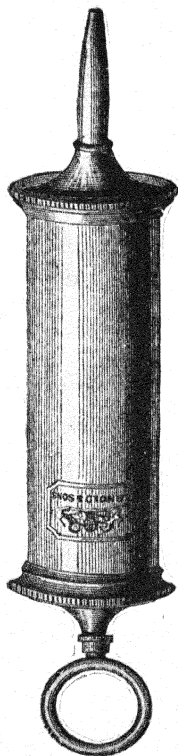
Plate XXV.



1



2



3

PLATE XXVI.

THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

Tubular Instruments for Ascites and Hydrocele. Canula.

FIGURE.	PAGE.
1.—Dākodara Yantra or Canula for Paracentesis Abdominis	122
2.—Jalodara Yantra or Canula, after Thakore Saheb	122
3.—Canula (Naples Museum), after Milne Pl. XXXIX. Fig. 2.	122
4.—Trocar and Canula. Paracentesis abdominis. (modern) A. S. Fig. 1441	123
5.—Hydrocele Canula	123
6.—Hydrocele Trocar and Canula (modern) A. S. Fig. 1436.	123

The Surgical Instruments of the Hindus.

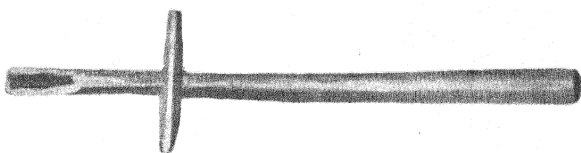
Plate XXVI.



1



2



3



4



5



6

PLATE XXVII.

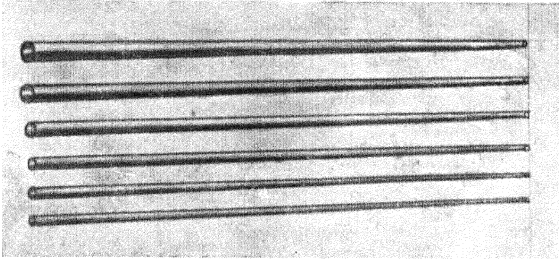
THE NĀDĪ YANTRA OF TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR URETHRAL STRICTURE.

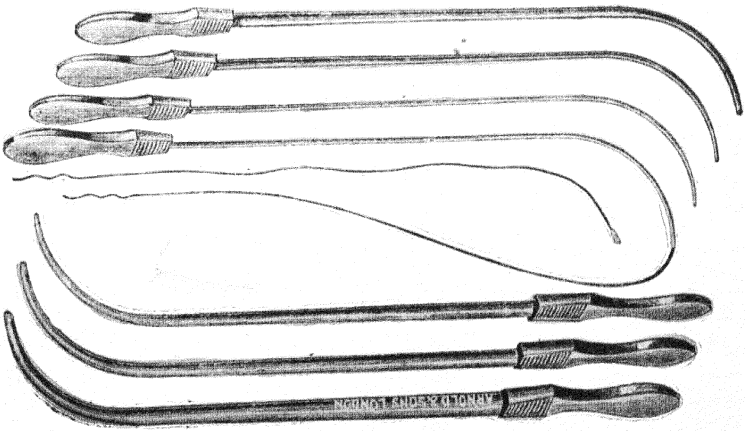
FIGURE.		PAGE.
1.—Urethral Stricture Dilators	... ..	123
2.—Bruce Clarke's Bougies. Set of seven, steel, tapering, A. S. Fig. 2246 and 2247.	... ..	125

The Surgica Instruments of the Hindus.

Plate XXVII.



1



2

PLATE XXVIII.

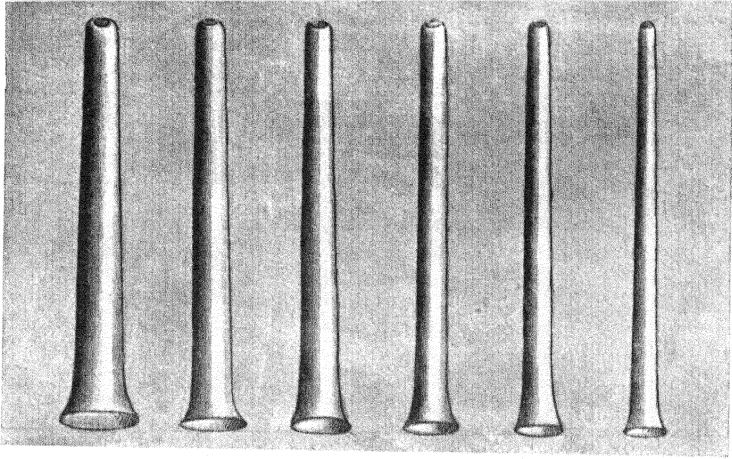
THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENT FOR RECTAL STRICTURE.

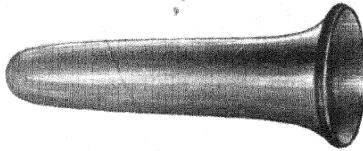
FIGURE.		PAGE.
1.—Rectal Dilators	... ..	124
2.—Rectal Dilators, different sizes	... ..	124
3.—Cripp's Rectal Dilators. A. S. Fig. 2335.	... ..	125

The Surgical Instruments of the Hindus.

Plate XXVIII.



1



2



3

PLATE XXIX.

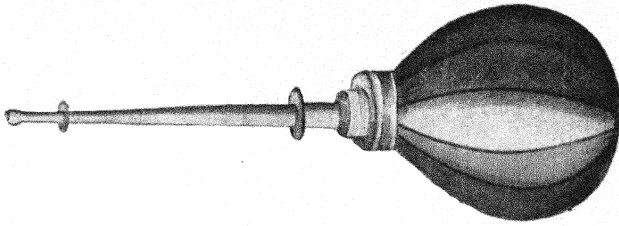
THE NĀDI YANTRA OR TUBULAR INSTRUMENTS.

VASTI YANTRA OR RECTAL CLYSTER.

FIGURE.	PAGE.
1.—Vasti-Yantra or Rectal Clyster	129
2.—The same, after Thakore Saheb	129
3.—Enema Syringe (modern) A. H. Fig. 6624.	129
4.—Suvasti Yantra, or Rectal Clyster (Veterinary)	131

The Surgical Instruments of the Hindus.

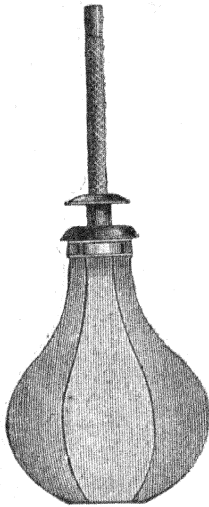
Plate XXIX.



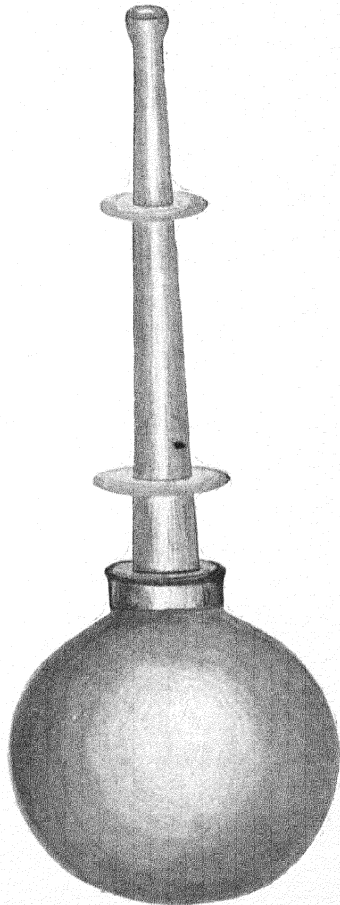
1



2



3



4

PLATE XXX.

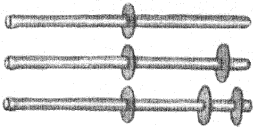
THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.
UTTARA-VASTI.

TUBULAR INSTRUMENTS FOR THE URETHRA.

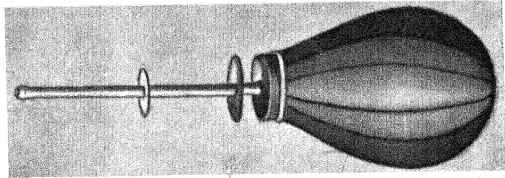
FIGURE.	PAGE.
1.—Puṣpanetra with one, two and three projections 	135, 136
2.—Uttaravasti for Urethra or Urethral Syringe, male ... ...	... 136
3.—The same, female ... ...	... 136
4.—Urethral Syringe (modern). A. H. Fig. 3869.	... 136
5.—Uttara-Suvasti (Veterinary). ...	... 131

The Surgical Instruments of the Hindus.

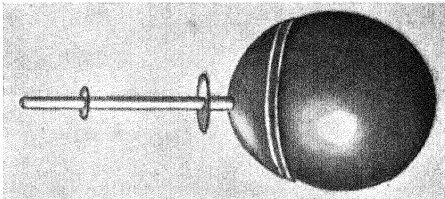
Plate XXX.



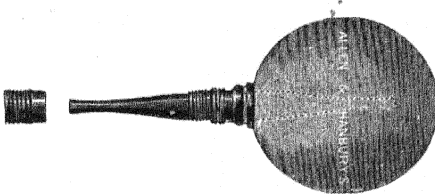
1



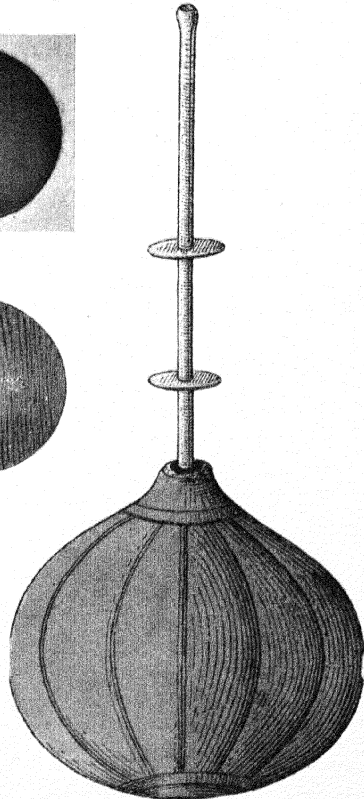
2



3



4



5

PLATE XXXI.

THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

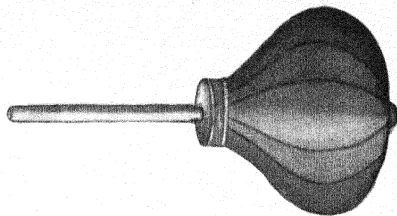
UTTARAVASTU.

TUBULAR INSTRUMENTS FOR VAGINA AND UTERUS.

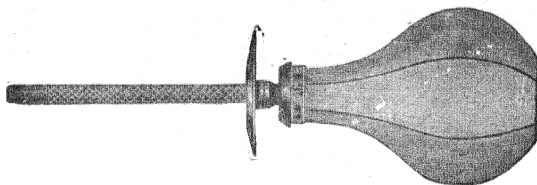
FIGURE.	PAGE.
1.—Vaginal Syringe	138
2.—Vaginal Syringe (modern). A. H. Fig. 6626 ...	138
3.—The same. A. S. Fig. 2443.	138
4.—Uterine tube	139
5.—Uterine tube (Budin's) A. S. Fig. 1801 ...	139
6.—Uterine Syringe	139

The Surgical Instruments of the Hindus.

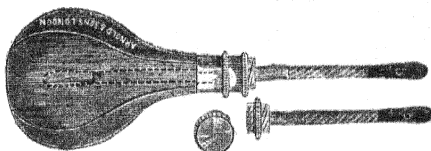
Plate XXXI.



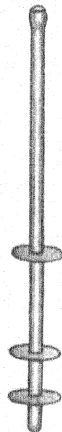
1



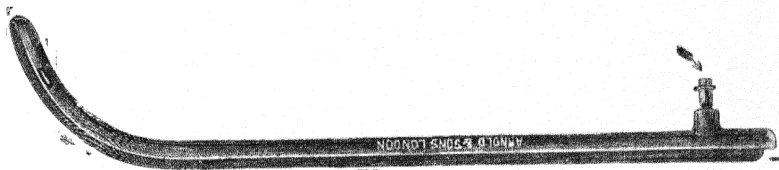
2



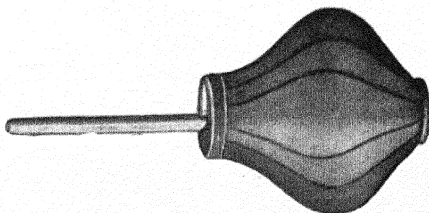
3



4



5



6

PLATE XXXII.

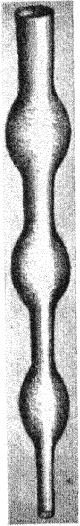
THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR INHALATION AND FUMIGATION.

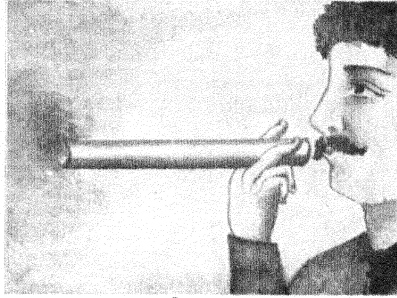
FIGURE.	PAGE.
1.—Dhūmanāḍī or tube for smoking ...	140
2.—Dhūmanāḍī or tube of medicinal paste ...	141
3.—Mallaka Saṁputa or Śarāba Saṁputa. The fumigator for inhalation, wound fumi- gation, and vaginal and uterine fumigation ...	142
4.—The fumigator, after Hippocrates and Śārīḅdhara	146, 322
5.—Bronchitis kettle (modern) B. B. Fig. 401.	145

The Surgical Instruments of the Hindus.

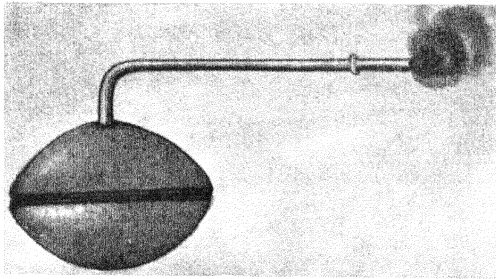
Plate XXXII.



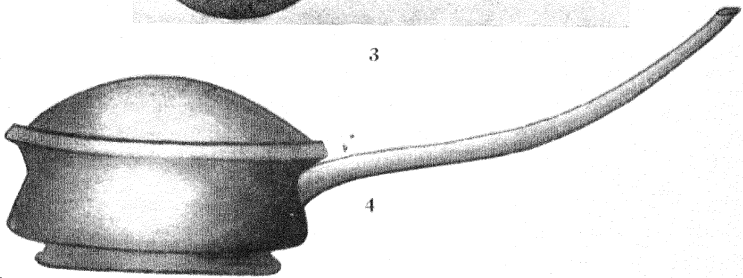
1



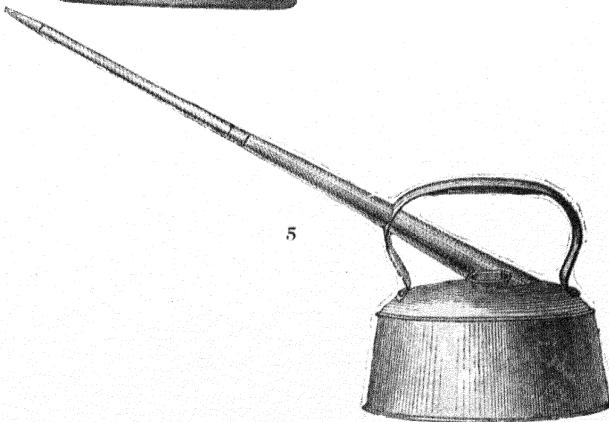
2



3



4



5

PLATE XXXIII.

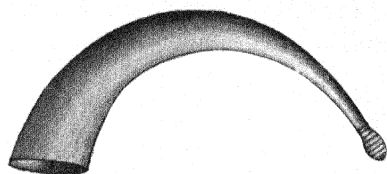
THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR CUPPING.

FIGURE.	PAGE.
1.—Sṛiṅga or Horn 	148
2.—Cupping horns as used in Kordofan, Wellcome. Fig. 200. 	156
3.—Alābu Yantra or Gourd	156
4.—Cupping glass (modern) B. B. Fig. 281. 	157
5.—Ghaṭī Yantra 	157

The Surgical Instruments of the Hindus.

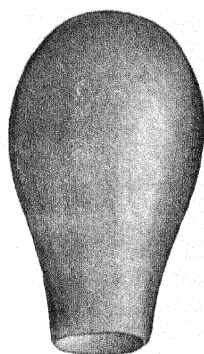
Plate XXXIII.



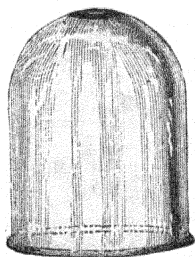
1



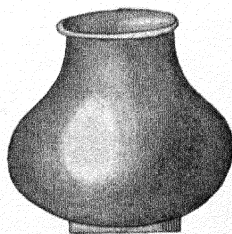
2



3



4



5

PLATE XXXIV.

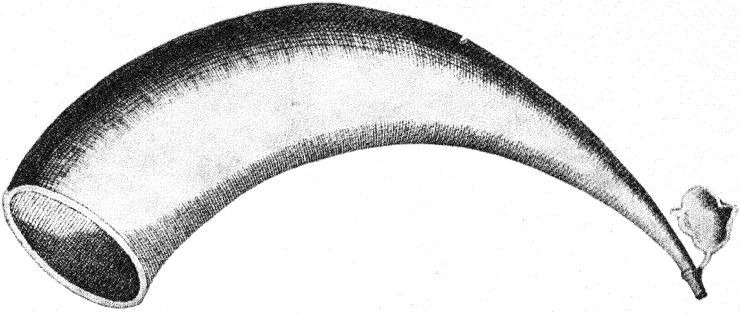
THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS:

TUBULAR INSTRUMENTS FOR CUPPING.

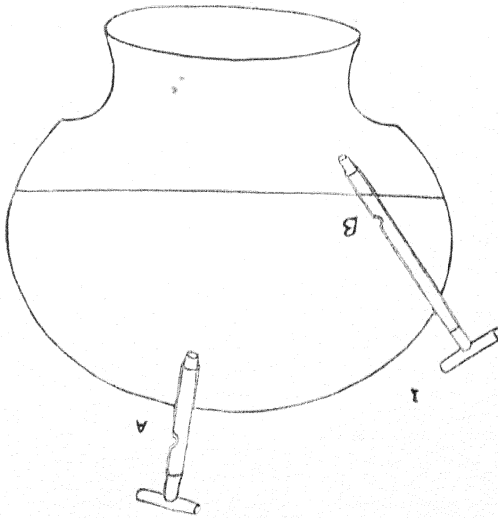
FIGURE.	PAGE
1.—Egyptian cupping horn, Milne after Alpinus. Pl. XXXV.II Fig. 1.	153
2.—Alexandrian Cup, Milne after Hero. Pl. XXXVII. Fig. 2.	153

The Surgical Instruments of the Hindus.

Plate XXXIV.



1



A

B

1

2

PLATE XXXV.

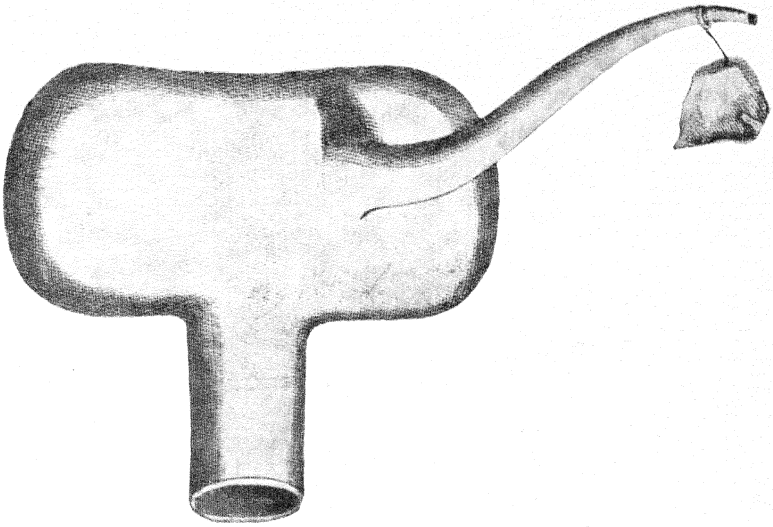
THE NĀḌĪ YANTRA OR TUBULAR INSTRUMENTS.

TUBULAR INSTRUMENTS FOR CUPPING.

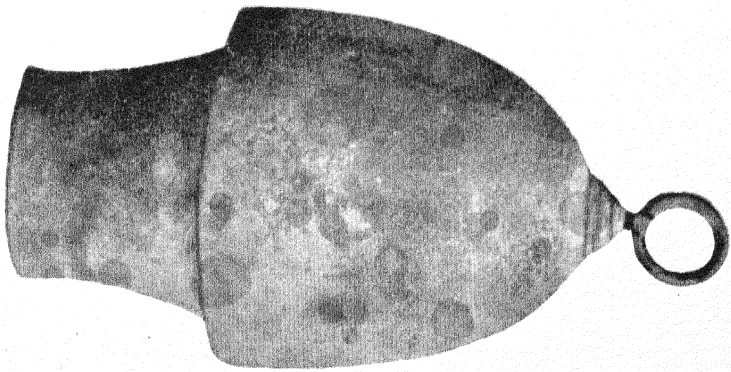
FIGURE.	PAGE.
1.—Cup illustrated by Alpinus. Milne Pl. XXXVI. Fig. 2.	153
2.—Greek Cup. (Naples Museum). Milne Pl. XXXV.	153

The Surgical Instruments of the Hindus.

Plate XXXV.



1



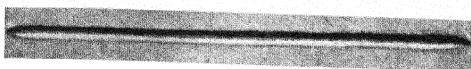
2

PLATE XXXVI.

ŚALĀKĀ OR RODS.

FIGURE.	PAGE.
1.—Gaṇḍupada Śalā or Earthworm probe ...	155
2.—Śarapuṅkha Śalā or Arrow-wing probe ...	155
3.—Sarpafaṇā Śalā or Snake's hood probe ...	156
4.—Vaḍiśa śalā or Fish-hook probe ...	156
5.—Masūradala-baktra Śalā or Masūra-pulse probe	157
6.—Pramānjana Śalā or Swab probe ...	157
7.—Swab probe with Aural Scoop. (modern). A. II. Fig. 2037	157
8.—Spathomele or spatula probe of the Greeks. Milne, Plate XII. Fig. 3.	157

The Surgical Instruments of the Hdinus.
Plate XXXVI.



1



2



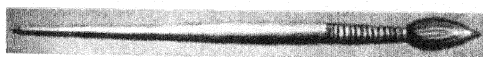
3



4



5



6



7



8

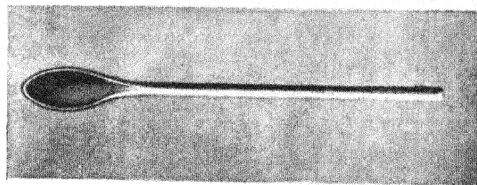
PLATE XXXVII.

ŚĀLĀKĀ OR RODS.

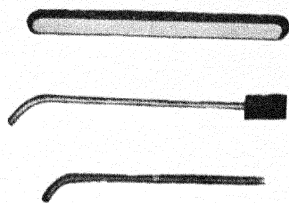
FIGURE.	PAGE.
1.—Darbhākṛti Khallamukha Śālā or Spoon-shaped probe	158
2.—Darvyākṛti Śālā, after Thakore Saheb...	158
3.—Nakha-mukha Śālā or Nail-shaped probe ...	159
4.—Jāmvavouṣṭha Śālā or Jāmbula probe ...	159
5.—Aṅkuśa Śālā or goad probe ...	159
6.—Kolāsthidala Śālā or Jujube probe ...	160
7.—Cyathiscomele. Milne. Pl. XIV. Fig.3.	160

The Surgical Instruments of the Hindus.

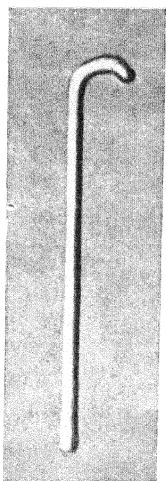
Plate XXXVII.



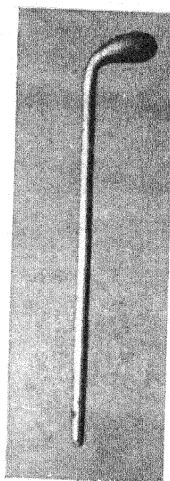
1



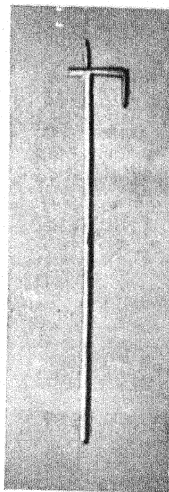
2



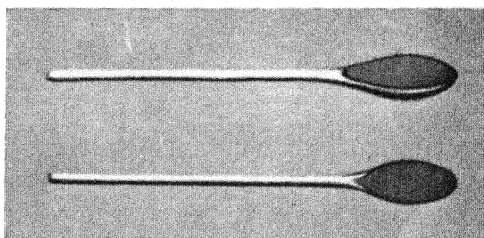
3



4



5



6



7

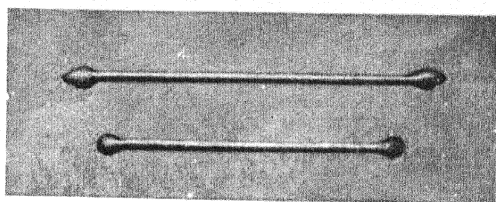
PLATE XXXVIII.

ŚALĀKĀ OR RODS.

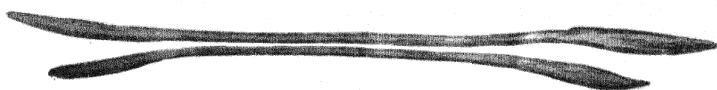
FIGURE.	PAGE.
1.—Mukulāgra Śālā or Bud-shaped collyrium probe	160
2.—Ancient collyrium probes found in the Bihat excavations. Princep. Pl. IV. Fig. 18. ...	162
3.—Greek specillum with olivary end. Milne. Pl. XI. fig. 5.	163
4.—Kārṇa Śodhana or Ear cleaner	163
5.—Director with scoop (modern) A. S. Fig. 278. ...	164
6.—Śālākā Yantra, after Thakore Saheb	162
7.—Snuhī Yantra, after Thakore Saheb	162

The Surgical Instruments of the Hindus.

Plate XXXVIII.



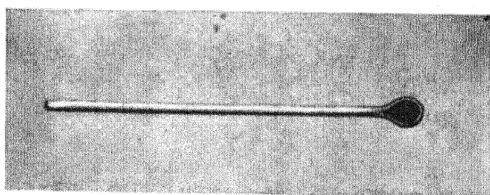
1



2



3



4



5



6



7

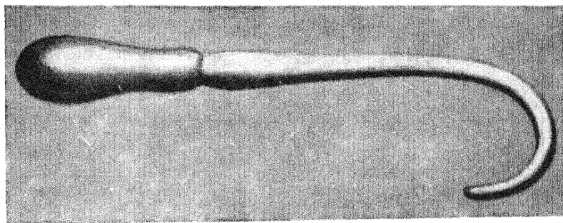
PLATE XXXIX.

ŚALĀKĀ OR RODS.

FIGURE.	PAGE.
1.—Garbha Śaṅku or Fœtus or Traction hook ...	165
2.—The same, after Thakore Saheb ...	165
3.—Barnes' Blunt hook (modern) A. S. Fig. 2031. ...	166
4.—Śaṅku Yantra, after Thakore Saheb ...	165
5.—Yugma Śaṅku, or Midwifery forceps, after Thakore Saheb ...	166
6.—Anderson's Midwifery Forceps (modern) A. S. Fig. 1964. ...	167

The Surgical Instruments of the Hindus.

Plate XXXIX.



1



2



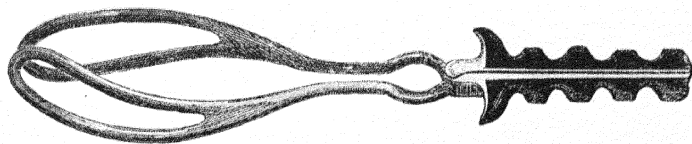
3



4



5



6

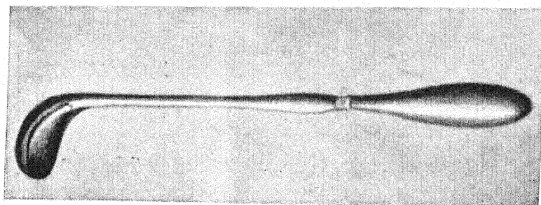
PLATE XL.

ŚALĀKĀ OR RODS.

FIGURE.	PAGE.
1.—Agrabakra or Sarpafaṇā Śalā or Snake's hood probe	168
2.—Aśmariharana Yantra or Stone extractor, after Thakore Saheb	168
3.—Erichsen's Lithotomy Scoop, A. S. Fig. 2474 ...	169
4.—Lithotomy forceps (modern) A. S. Fig. 2446. ...	169
5.—Śarapuṅkhamukha Śalā or Tooth-elevator ...	711
6.—Tooth Elevator, after Thakore Saheb ...	171
7.—Tooth Elevator (modern) A. S. Fig. 1404. ...	171

The Surgical Instruments of the Hindus.

Plate XL.



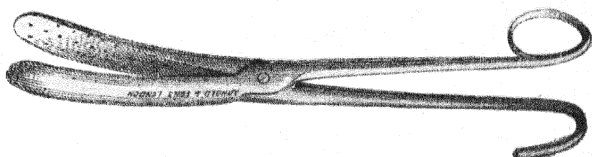
1



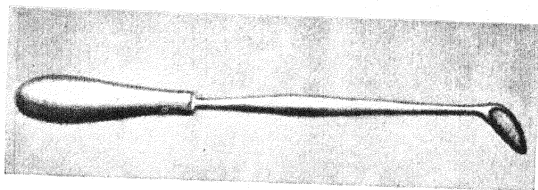
2



3



4



5



6



7

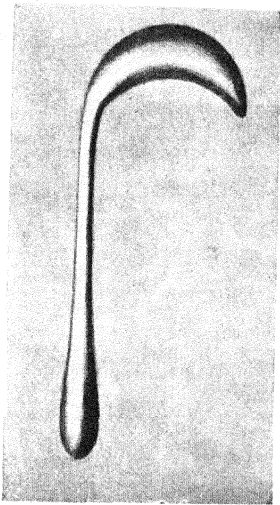
PLATE XLI.

ŚALĀKĀ OR RODS.

FIGURE.		PAGE.
1.—Ardhacandramukha probe	Śalā or	Half-moon 171
2.—Muṣala or Pestle	... .. ... ..	... .. 172
3.—Urethral Probe (Suśruta)	... ..	... .. 174
4.—Urethral Probe (Caraka)	... ..	... .. 174
5.—Urethral Bougie (modern)	A. S. fig. 2241	... .. 174
6.—Urethral Bougie (modern)	A. S. Fig. 2233.	... .. 174

The Surgical Instruments of the Hindus.

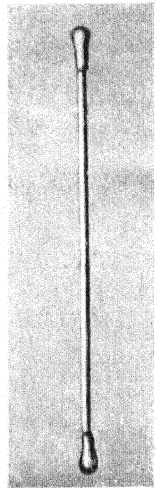
Plate XLI.



1



2



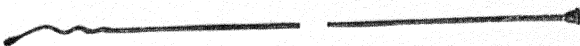
3



4



5



6

PLATE XLII.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

PATTA OR BANDAGES.

FIGURE.	PAGE.
1.—Kośa or Sheath. Heath. Fig. 11. ...	... 177
2.—Dāma ... ...	... 177
3.—Svastika or Circular Cross Bandage. Esmarch. Fig. 33. ... ...	... 177
4.—Anuvellita or Encircling Bandage. Esmarch. Fig. 27. ... ...	... 177
5.—Protoli ... ...	... 177

The Surgical Instruments of the Hindus.

Plate XLII.

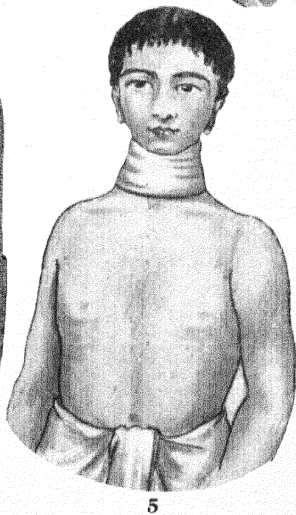
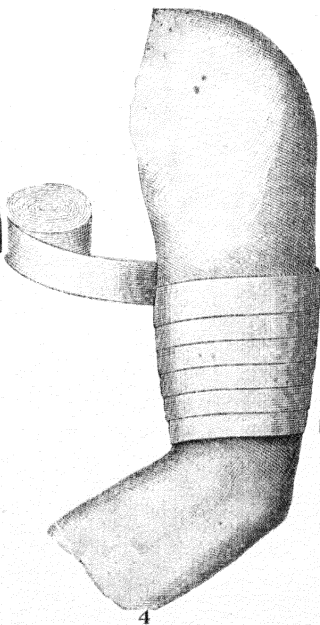
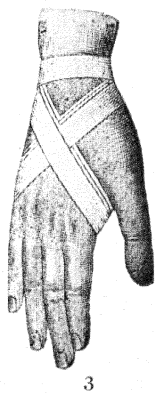
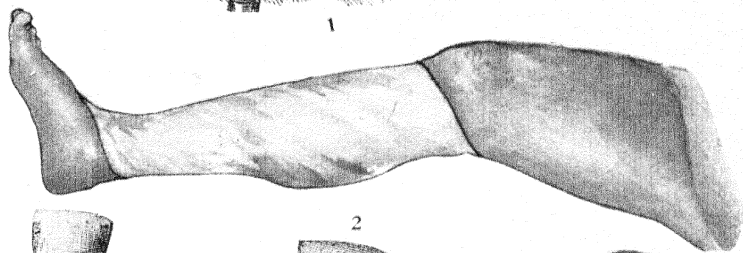
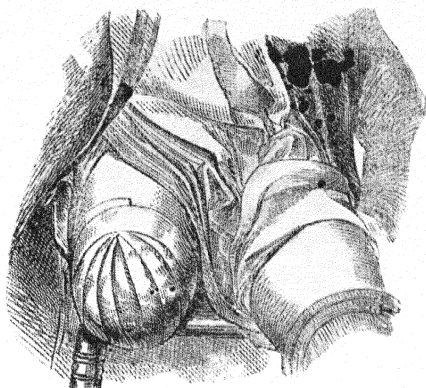


PLATE XLIII.

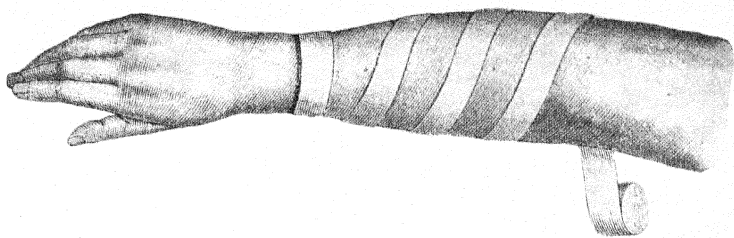
UPAYANTRA OR ACCESSORY INSTRUMENTS.

PATTA OR BANDAGES.

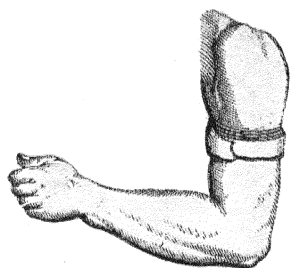
FIGURE.		PAGE.
1.—Mandala or Circular Bandage. Esmarch. Fig. 28. ...		177
2.—The same, Greek. Adams. Vol. II. Pl. VI. Fig. 1 ...		177
3.—Sthagikā or Supporter		178
4.—Yamaka or Double Bandage		178

The Surgical Instruments of the Hindus.

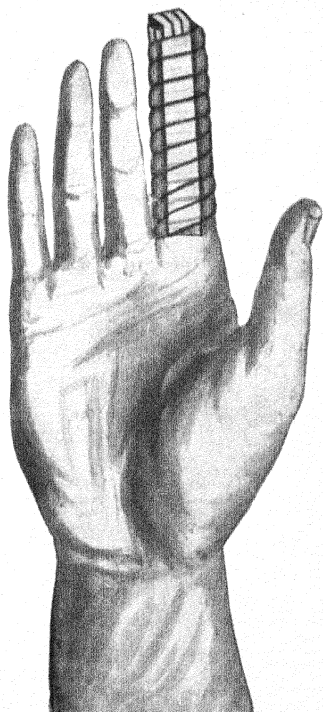
Plate XLIII.



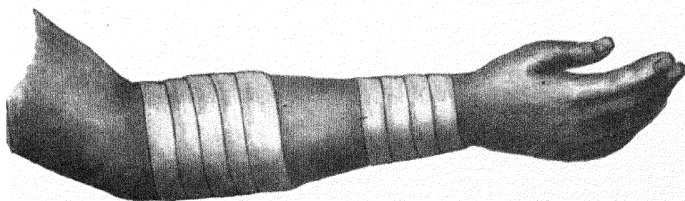
1



2



3



4

PLATE XLIV.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

PATṬA OR BANDAGES.

FIGURE.		PAGE.
1.—Khattā or four-tailed bandage	...	... 178
2.—The same. Greek.	C. C. G. Pl. XLIV	... 178
3.—The same (modern).	Swain. Fig. 13	... 178
4.—Cīna or banner bandage.	Esmarch. Fig. 101.	... 178

The Surgical Instruments of the Hindus.

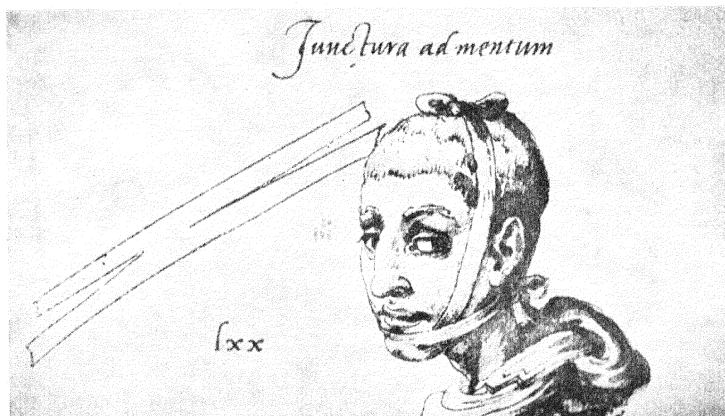
Plate XLIV.



1



2



3



4

PLATE XLV.

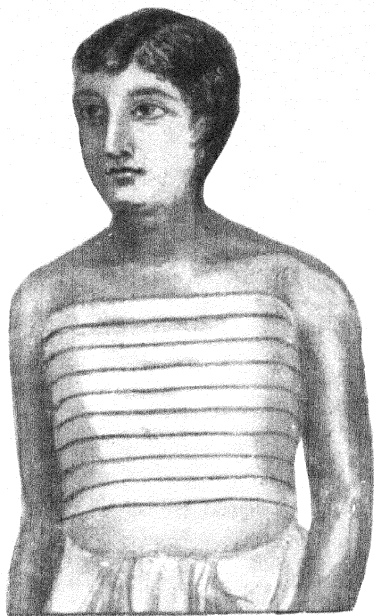
UPAYANTRA OR ACCESSORY INSTRUMENTS.

PATTA OR BANDAGES.

FIGURE.	PAGE.
1.—Vivandha or circular chest bandage ...	... 178
2.—Vitāna or canopy bandage. Esmarch. Fig. 92 ...	... 178
3.—Gophaṇā or sling. Esmarch. Fig. 102....	... 178
4.—Pancāṅgī or five tailed bandage ...	... 179
5.—The same. Greek. C. C. G. Pl. LIII.	... 179

The Surgical Instruments of the Hindus.

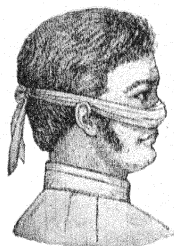
Plate XLV.



1



2



3



4



5

PLATE XLVI.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

FIGURE.	PAGE.
1.—Udara veṣṭa or Abdominal Binder ...	... 181
2.—Abdominal Binder (modern) A. H. Fig. 8170 ...	... 181
3.—Hair cover before operation ...	... 183
4.—Leather sling ...	... 184
5.—Leather bandage for prolapse of the Rectum ...	... 184
6.—Leather ligature ...	... 146

The Surgical Instruments of the Hindus.

Plate XLVI.

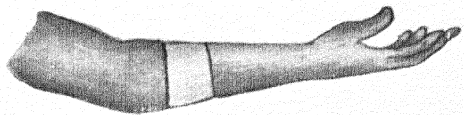
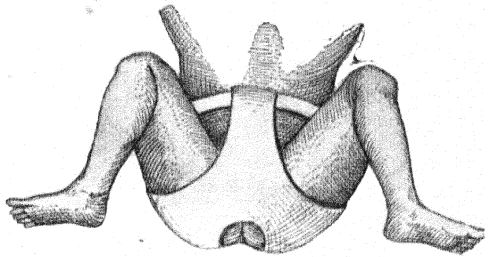
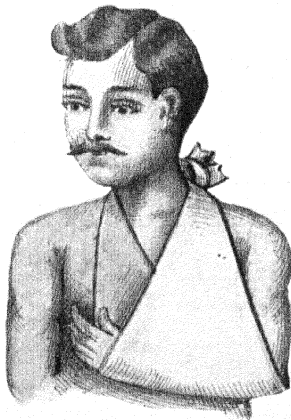
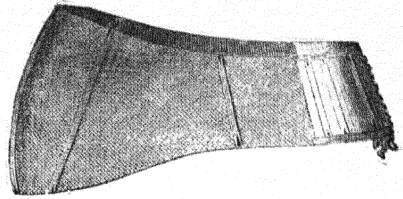
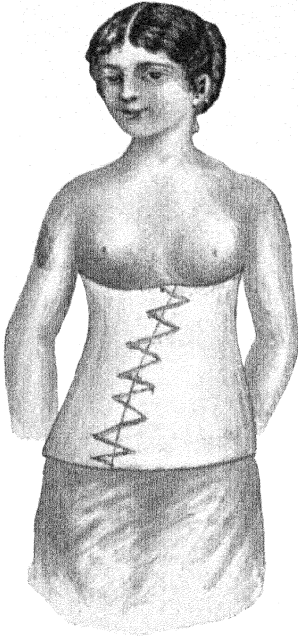


PLATE XLVII.

ŪPAYANTRA OR ACCESSORY INSTRUMENTS.

FIGURE.		PAGE.
1.—	Field hospital (modern) Porter. Fig 28	... 181

The Surgical Instruments of the Hindus.

Plate XLVII.

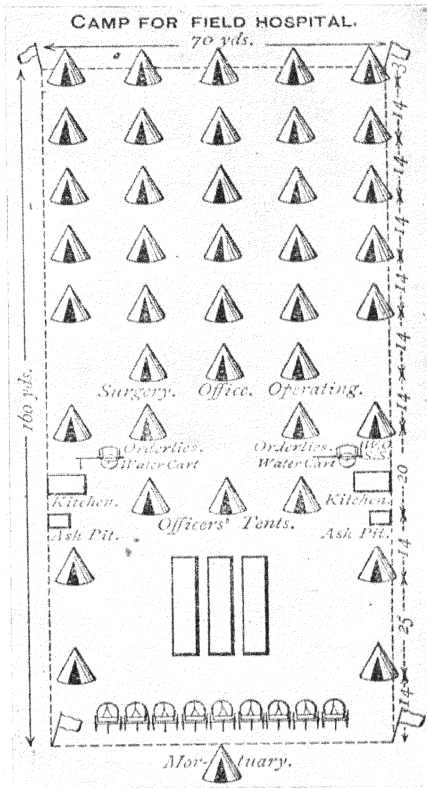


PLATE XLVIII.

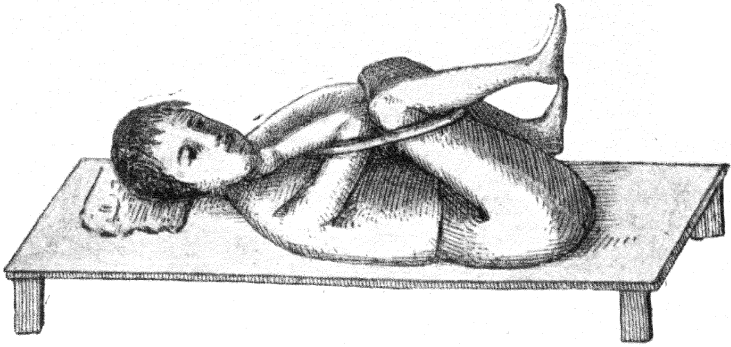
UPAYANTRA OR ACCESSORY INSTRUMENTS.

YANTRA-ŚĀṬAKA OR BINDING APPARATUS.

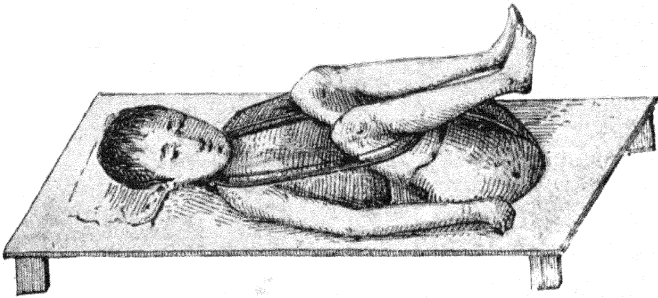
FIGURE.	PAGE.
1.—Yantra Śāṭaka or Lithotomy apparatus	... 185
2.—Yantra Śāṭaka or Binding apparatus for pile	... 186
3.—Yantra Śāṭaka or Binding apparatus for phlebotomy ... ..	... 186

The Surgical Instruments of the Hindus.

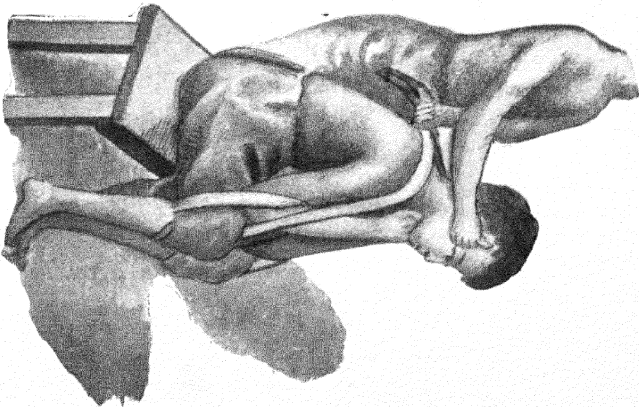
Plate XLVIII



1



2



3

PLATE XLIX.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

Yatra Śāṭaka or Binding Apparatus.

FIGURE.		PAGE.
1.—	Binding apparatus of the Greeks, C. C. G. Pl. LXIX	187
2.—	The same „ Pl. LXX	187
3.—	Lithotomy Strap (Cripp's). A. S. Fig. 2509. ...	187

The Surgical Instruments of the Hindus.
 Plate XLIX.

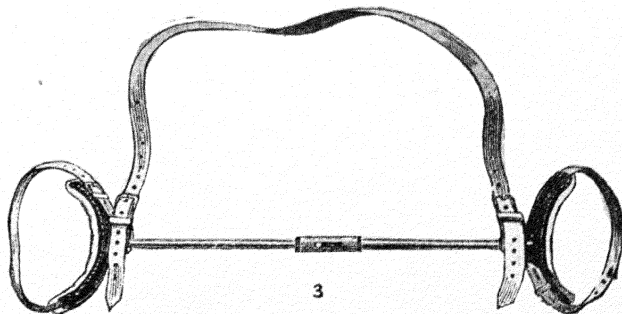
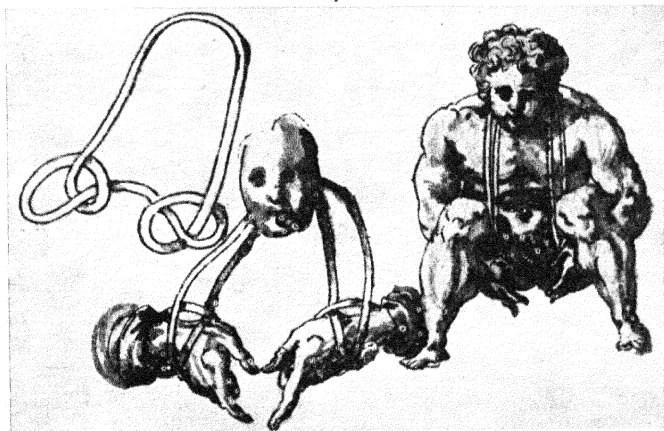
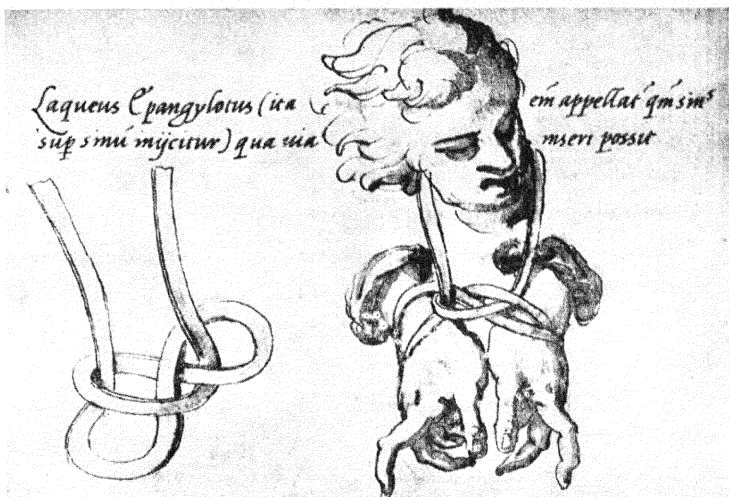


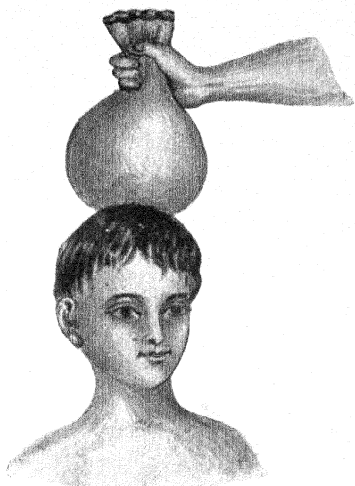
PLATE L.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

FIGURE.	PAGE.
1.—Śiro-vesti or Leather bag for the head (Suśruta) ... ..	... 188
2.—The same (Śirūgadhara) ... ..	... 189
3.—Ice bag for head (conical) A. H. Fig. 8282	... 188
4.—Ice bag (Round). A. H. Fig. 8293 ...	... 188

The Surgical Instruments of the Hindus.

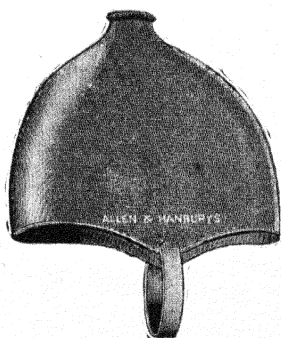
Plate L.



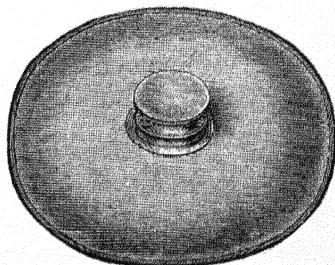
1



2



3



4

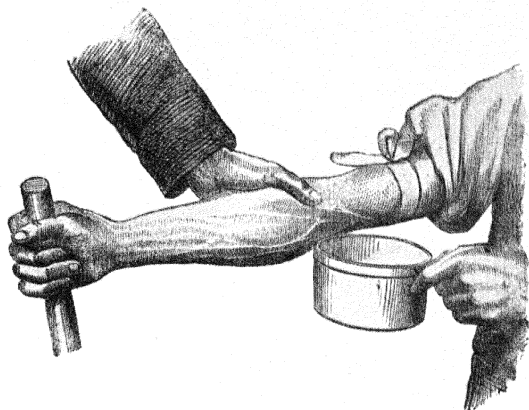
PLATE LI.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

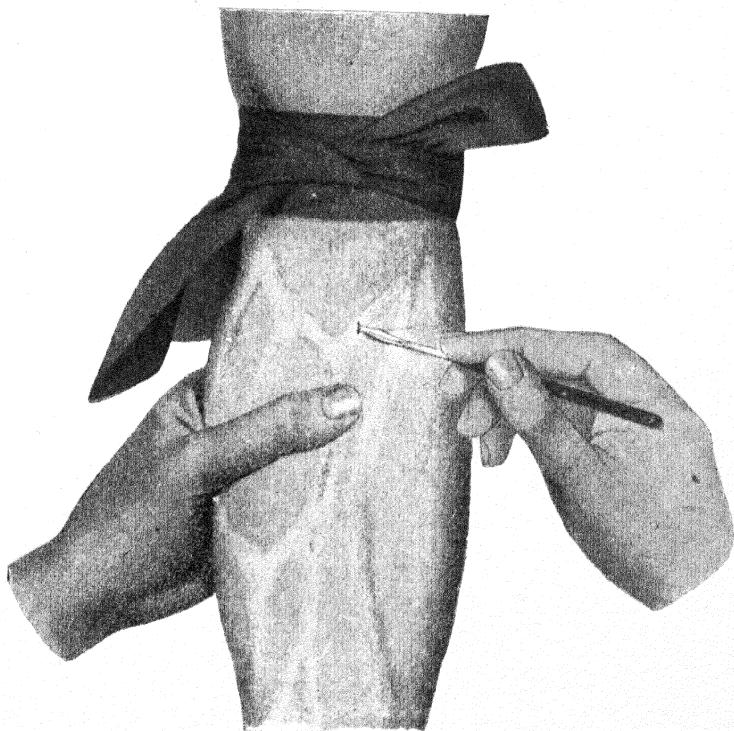
FIGURE.	PAGE.
1.—Leather band for phlebotomy at the elbow	... 190
2.—Band for phlebotomy. Esmarch. Pl. XXIII.	... 190

The Surgical Instruments of the Hindus.

Plate LI.



1



2

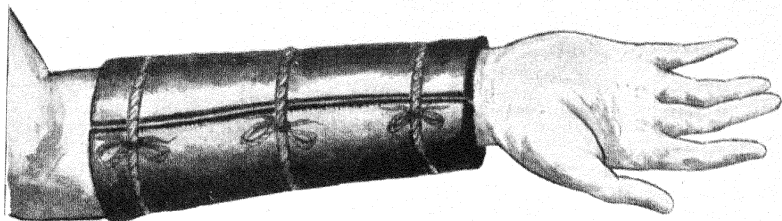
PLATE LII.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

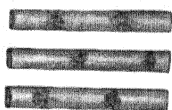
FIGURE.	PAGE.
1.—Bark splint	193
2.—Bamboo strips	194
3.—Splints of the Greeks. Adams. Vol. II. Pl. VIII.	
Fig. 1	193
209.—The same	193
	" " " Fig. 2

The Surgical Instruments of the Hindus.

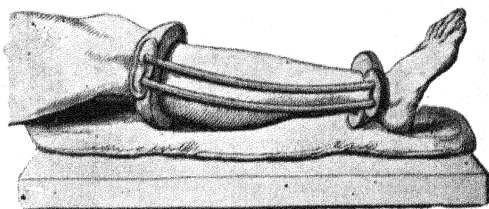
Plate LII.



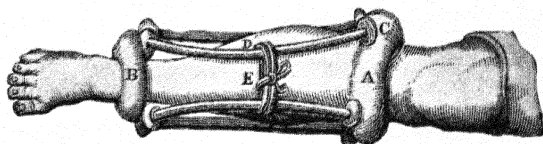
1



2



3



4

PLATE LIII.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

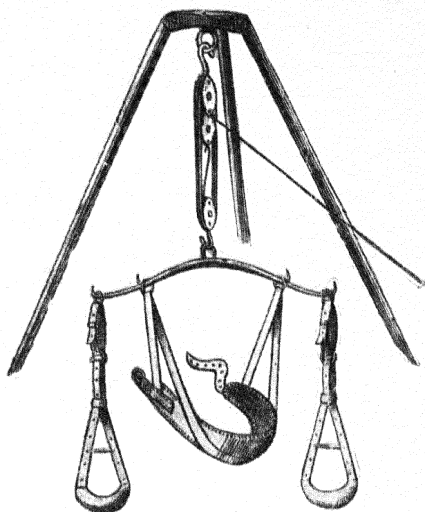
FIGURE.		PAGE:
1.—	Reduction of dislocation of the neck ...	194
2.—	Sayre's Suspension apparatus. A. S. Fig. 2997. ...	194
3.—	Jury mast. A. S. Fig. 2998. ...	194

The Surgical Instruments of the Hindus.

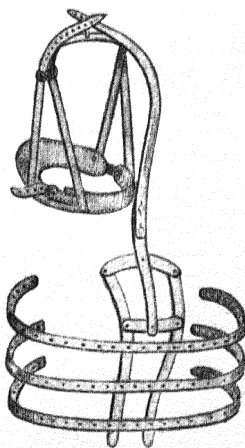
Plate LIII.



1



2



3

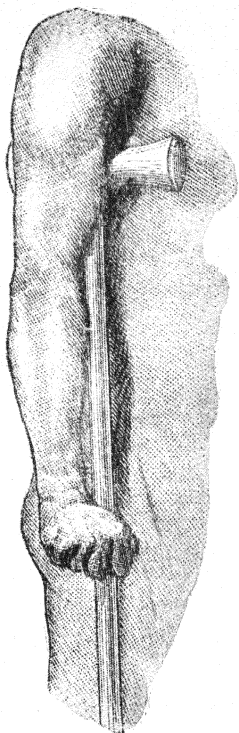
PLATE LIV.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

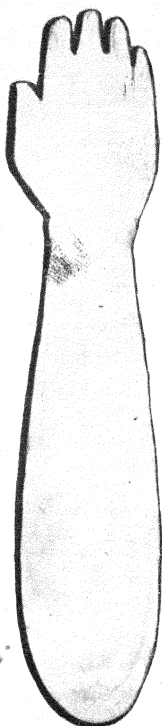
FIGURE.	PAGE.
1.—Crutch (modern) A. S. Fig. 3061 ...	... 195
2.—Wooden splint for hand ...	... 196
3.—The same (modern) (Pemberton's) A. H. Fig. 7456 ...	... 196
4.—Stone Roller ...	197, 198
5.—Mudgara or hammer ...	... 198
6.—The same. Greek. Adams. Vol. I. Pl. III. Fig. 5 ...	199

The Surgical Instruments of the Hindus.

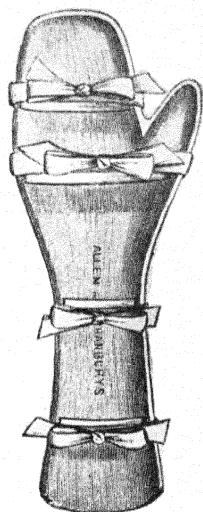
Plate LIV.



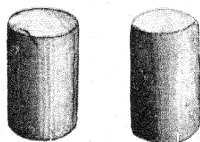
1



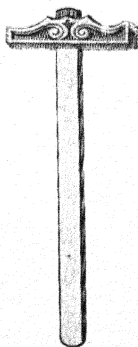
2



3



4



5



6

PLATE LV.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

FIGURE.		PAGE.
1.	—Reduction of dislocation of the lower jaw	... 201
2.	—The same (modern). Erichsen, Vol. I. Fig. 243.	... 201

The Surgical Instruments of the Hindus.

Plate LV.



1



2

PLATE LVI.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

FIGURE.	PAGE.
1.—The same, after the Greeks. C. C. G. Pi. XIX	... 201

The Surgical Instruments of the Hindus.

Plate LVI.



PLATE LVII.

UPAYANTRA OR ACCESSORY INSTRUMENTS.

FIGURE.		PAGE.
1.—Vāla varti or Hair tents or drains	... ..	206
2.—Kesonduka or Hair bundle	... ..	206
3.—Probang (modern) A. H. Fig. 3267	... ..	207
4.—El Kamaia. Anderson. Fig. 90. Wellcome	... ..	217

The Surgical Instruments of the Hindus.

Plate LVII.



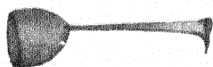
1



2



3



4

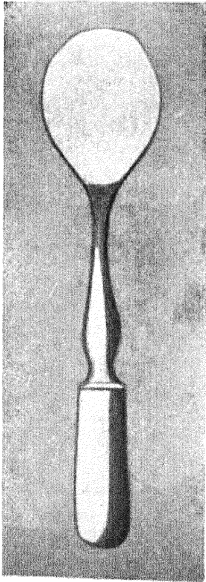
PLATE LVIII.

THE MAṄDALĀGRA ŚASTRA OR ROUND HEADED KNIFE.

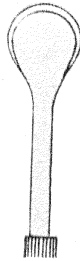
FIGURE.	PAGE.
1.—Maṅdalāgra Sastra or Round headed knife (Suśruta)	225
2.—The same. After Wise	225
3.—The same, for eye operation (Suśruta)	226
4.—Knife for Plastic operation on eyelid (Albucasis). Milne. Pl. IX. Fig. 3	228
5.—The embryotome (Albucasis). Milne, Pl. VIII Fig. 7	226

The Surgical Instruments of the Hindus.

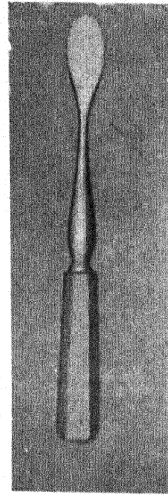
Plate LVIII.



1



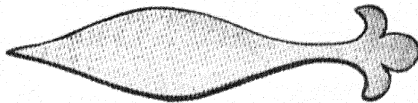
2



3



4



5

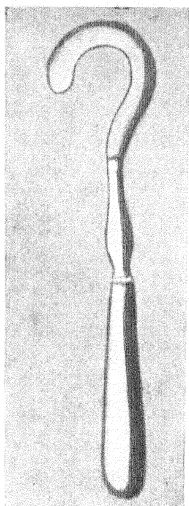
PLATE LIX.

THE MAṄḌALĀGRA ŚASTRA OR ROUND HEADED KNIFE.

FIGURE.	PAGE.
1.—Maṅḍalāgra Śastra or Round headed knife (Vāgbhaṭa)	225
2.—The same. After Thakore Saheb	225
3.—Ramsbotham's Decapitating Hook. A. S. Fig. 2027	225
4.—Maṅḍalāgra Śastra or Razor-like round headed knife (Dallaṇa)	225

The Surgical Instruments of the Hindus.

Plate LIX.



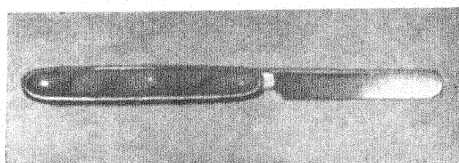
1



2



3



4

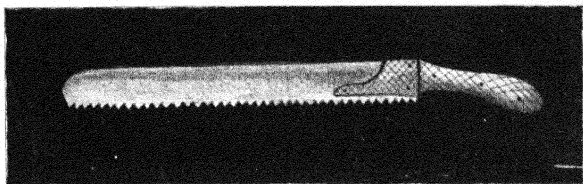
PLATE LX.

KARAPATRA ŚASTRA OR SAW.

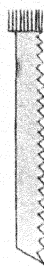
FIGURE.	PAGE-
1.—Karapatra or Saw 	230
2.—The same. After Wise 	230
3.—The same. After Thakore Saheb 	230
4.—The saw as used by the Greeks. Milne, Pl. XLI. Fig. 3 	231
5.—The Saw (Modern) 	231
6.—Trepine of the Greeks. Adams. Vol. I. Pl. I. Fig. 3	232
7.—The Trepine (Modern) A. H. Fig. 1145.	232

The Surgical Instruments of the Hindus.

Plate LX.



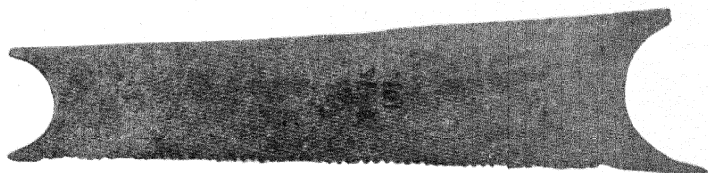
1



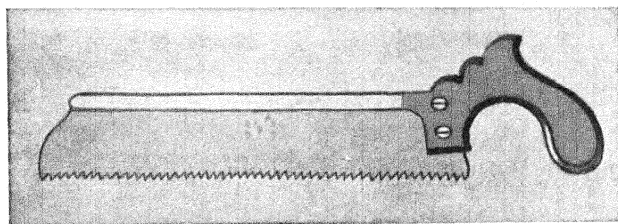
2



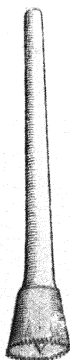
3



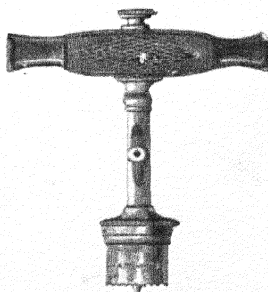
4



5



6



7

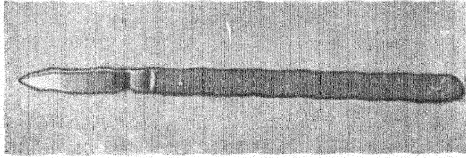
PLATE LXI.

VṚDDHIPATRA ŚASTRA OR KNIFE.

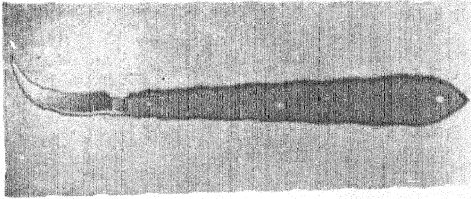
FIGURE.	PAGE
1.—Vṛddhipatra or Knife	233
2.—The same, curved. Dīrghavaktra or long mouthed	233
3.—The same, curved. Hrasvavaktra or short mouthed	233
4.—Vṛddhipatra knife. After Wise ...	233
5.—Vṛddhipatra knife. After Thakore Shaheb ...	233
6.—Syme's Abscess knife A. H. Fig. 430...	233

The Surgical Instruments of the Hindus.

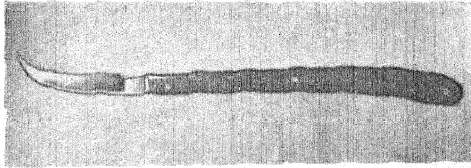
Plate LXI.



1



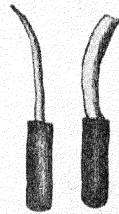
2



3



4



5



6

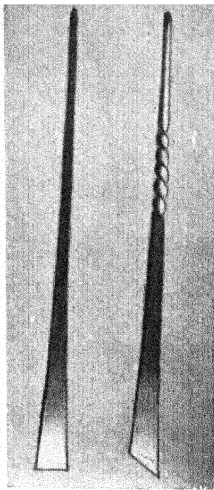
PLATE LXII,

NAKHA ŚASTRA OR NAIL PARER.

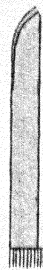
FIGURE.	PAGE.
1.—Nakha Śastra or Nail parer, straight and oblique	237
2.—The same. After Wise	237
3.—The same. After Thakore Saheb	237
4.—Nakha Śastra, a double instrument	237
5.—Rampaka	238
6.—Nail knife and cleaner A. II, Fig. 10244	238

The Surgical Instruments of the Hindus.

Plate LXII.



1



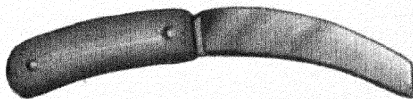
2



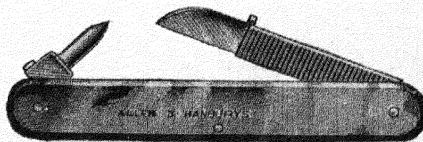
3



4



5



6

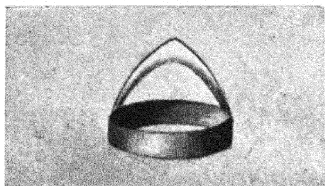
PLATE LXIII.

MUDRIKĀ ŚĀSTRA OR FINGER KNIFE.

FIGURE.	PAGE.
1.—Mudrikā or Anguli Śāstra or Finger knife (Vāgbhata)	238
2.—The same. After Thakore Saheb.	239
3.—The same. After Wise	239
4.—Simpson's Ring Scalpel	239
5.—Mayer's Ring-knife for the removal of adenoids from the nose. Waggett. Fig. 70	239
6.—Finger knife, Veterinary (Modern) Milne. Pl. VII. Fig. 1	240

The Surgical Instruments of the Hindus.

Plate LXIII.



1



2



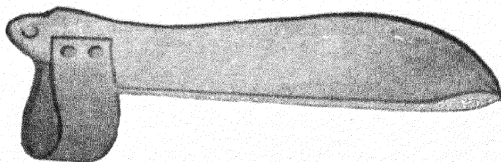
3



4



5



6

PLATE LXIV.

UTPALAPATRA ŚASTRA.

FIGURE.	PAGE.
1.—Utpalapatra Śastra or Phlebotome	241
2.—The same. After Wise	241
3.—The same. After Thakore Saheb.	241
4.—Myrtle leaf shaped knife used by the Greeks. Milne. Pl. VII. Fig 2	242
5.—Syme's knife for Ankle-joint. A. H. Fig. 253	242

ARDHADHĀRA ŚASTRA OR HALF-EDGED KNIFE.

6.—Ardhadhāra or Half-edged knife	243
7.—The same. After Wise	243
8.—The same. After Thakore Saheb	243

The Surgical Instruments of the Hindus.

Plate LXIV.



1



2



3



4



5



6



7



8

PLATE LXV.

SUCĪ OR NEEDLES.

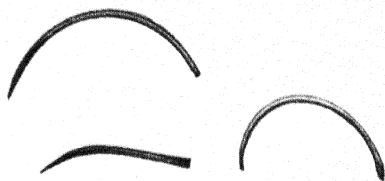
FIGURE.	PAGE.
1.—Sucī or Needles, straight	243
2.—The same, Half-curved and Full-curved ...	243
3.—The same. After Wise	243
4.—The same. After Thakore Saheb.	243
5.—Javamukhī needle	245
6.—Suture needles (modern) Hagedorn's. B. B. Fig. 59, 60, 61 and 62	245

The Surgical Instruments of the Hindus.

Plate LXV.



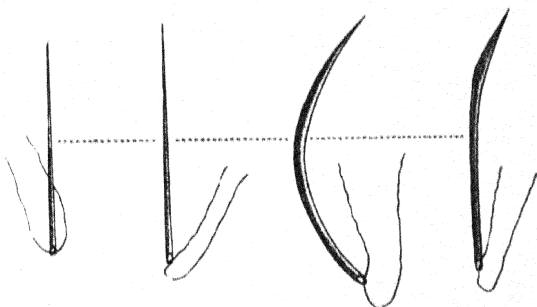
1



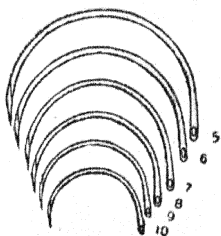
2



3



4



5

6

7

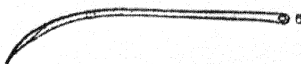
8

9

10



5



6



7



5

PLATE LXVI.

KUŚAPATRA ŚASTRA.

FIGURE.	PAGE.
1.—Kuśapatra Knife	247
2.—The same	247
3.—The same. After Wise	247
4.—The same. After Thakore Saheb.	247
5.—Paget's Knife. A. H. Fig. 481	247

ĀTĪMUKHA ŚASTRA.

6.—Ātīmukha Knife	249
7.—The same. After Wise	249
8.—The same. After Thakore Saheb.	249

The Surgical Instruments of the Hindus.

Plate LXVI.



1



2



3



4



5



6



7



8

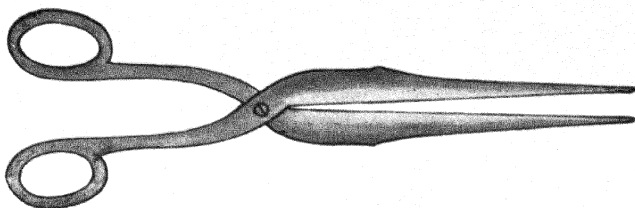
PLATE LXVII.

ŚARĀRĪMUKHA ŚASTRA OR SCISSORS.

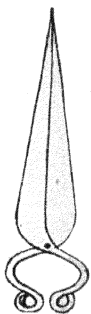
FIGURE.	PAGE.
1.—Śarārīmukha Śastra or Scissors ...	... 249
2.—The same. After Wise ...	... 249
3.—The same. After Thakore Saheb. ...	... 249
4.—Shears, found in Pompeii. Milae. Pl. X.	
Fig. 6 ...	... 249
5.—Scissors (modern). A. H. Fig. 696 ...	... 249

The Surgical Instruments of the Hindus.

Plate LXVII.



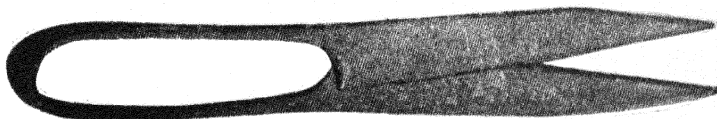
1



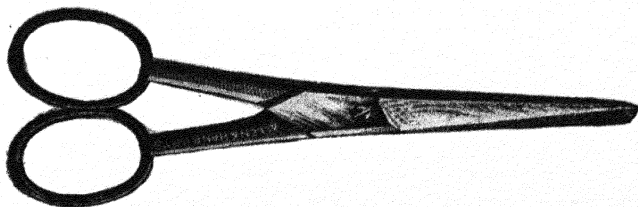
2



3



4



5

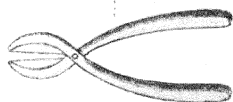
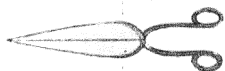
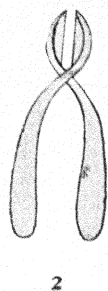
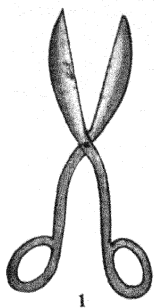
PLATE LXVIII.

ANTARMUKHA ŚASTRA OR SCISSORS.

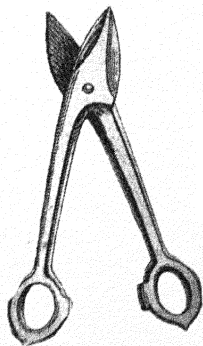
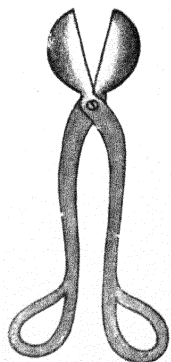
FIGURE.	PAGE.
1.—Antarmukha Śastra (Suśruta)	250
2.—The same. After Wise	250
3.—The same After Thakore Saheb.	250
4.—Ardhacandrānana (Vagbhāṭa) or Half- moon Scissors... ..	251
5.—Scissors as used by the Greeks. Adams. Vol. I. Pl. III. Fig. 8	251

The Surgical Instruments of the Hindus.

Plate LXVIII.



3



5

PLATE LXIX

TRIKŪRCCĀ ŚĀSTRA OR SCARIFICATOR.

FIGURE.	PAGE.
1.—Tri [̄] kūrccakra Śāstra	252
2.—The same. After Wise	251
3.—The same. After Thakore Saheb.	251
4.—Kūrcca	252
5.—Khaja	253

The Surgical Instruments of the Hindus.

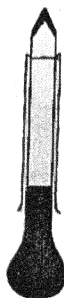
Plate LXIX.



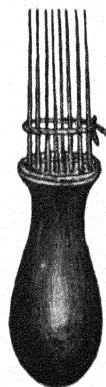
1



2



3



4



5

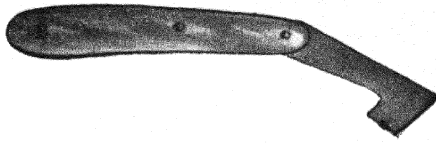
PLATE LXX.

KUṬHĀRIKĀ ŚĀSTRA OR AXE.

FIGURE.	PAGE.
1.—Kuṭhāra or Axe	245
2.—The same. After Wise	255
3.—The same. After Thakore Saheb.	255
4.—Improved Veterinary Fleam. White. P. 342	257
5.—Gum Lancet (Modern) A. H. Fig. 3690	257

The Surgical Instruments of the Hindus.

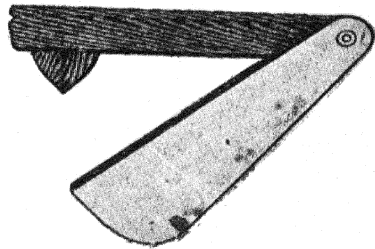
Plate LXX.



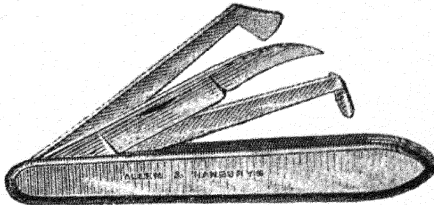
2



3



4



5

PLATE LXXI.

VRĪHIMUKHA ŚASTRA OR TROCAR.

FIGURE.	PAGE.
1.—Vrīhimukha Śastra or Trocar	257
2.—The same	257
3.—The same. After Wise	257
4.—The same. After Thakore Saheb	257
5.—Paracentesis abdominis Trocar (modern) A. S. Fig. 1441	258
6.—Hydrocele Trocar (Modern) A. S. Fig. 1436	261

The Surgical Instruments of the Hindus.

Plate LXXI.



1



2



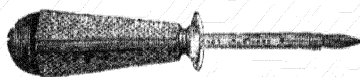
3



4



5



6

PLATE LXXII.

ĀRĀ ŚĀSTRA OR AWL.

FIGURE.	PAGE.
1.—Ārā or Awl (Dallaṇa)	262
2.—The same (Vāgbhaṭa)	262
3.—The same. After Wise	262
4.—The same. After Thakore Saheb	262
5.—Karna Vedhani or Ear perforator	263
6.—Juthikā or Ear perforator	263
7.—Fergusson's Awl, cleft palate. A. II. Fig. 3310	263

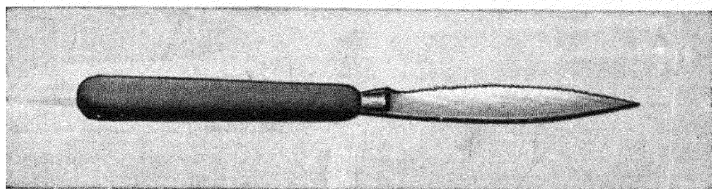
PLATE LXXIII.

VETASPATRA ŚASTRA.

FIGURE.		PAGE.
1.—Vetaspatra Sastra. Single edged	...	... 264
2.—The same. Double edged...	...	... 264
3.—The same. After Wise ...	...	... 264
4.—The same. After Thakore Saheb	...	... 264

The Surgical Instruments of the Hindus.

Plate LXXIII.



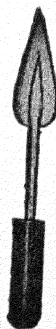
1



2



3



4

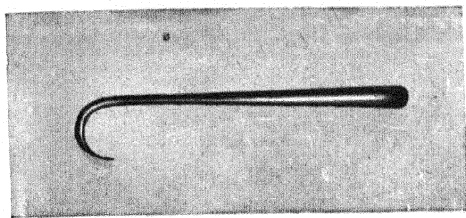
PLATE LXXIV.

VADĪŚĀ ŚĀSTRA OR SHARP HOOK.

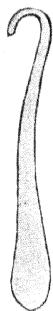
FIGURE.		PAGE.
1.—Vadīśā or sharp hook (Bhoja)	... ..	264
2.—The same. After Wise ...	... ..	264
3.—The same. After Thakore Saheb ...	... ..	264
4.—Sharp Hook of the Greeks. Milne. Pl. XXIV. Fig. 2. ... ..	... ..	266
5.—Sharp Hook. (modern) A. H. 461. ...	... ..	266

The Surgical Instruments of the Hindus.

Plate LXXIV.



1



2



3



4



5

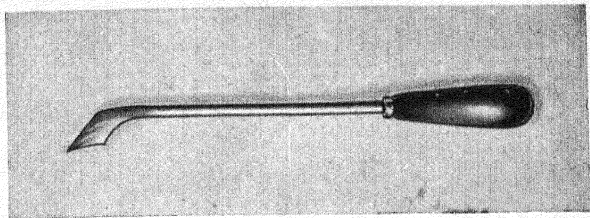
PLATE LXXV.

DANTA ŚAŅKU OR TOOTH-SCALER.

FIGURE.	PAGE.
1.—Danta ŚaŅku or Tooth-scaler (Suśruta) ...	267
2.—The same. After Wise ...	267
3.—The same. After Thakore Saheb ...	267
4.—Danta-lekhana or Tooth Scaler (Vāgbhāṭa) ...	267
5.—Tooth Scalers (Modern), various sizes and shapes, A. S. Fig. 1364 & 1365 ...	267

The Surgical Instruments of the Hindus.

Plate LXXV.



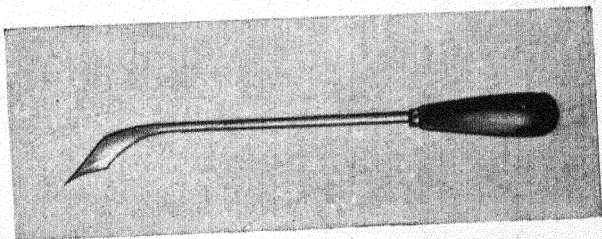
1



2



3



4



5

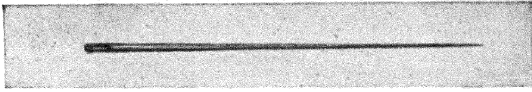
PLATE LXXVI.

ĒṢANĪ OR SHARP PROBES.

FIGURE.	PAGE.
1.—ĒṢANĪ or sharp probe 	270
2.—The same. After Wise 	270
3.—The same. After Thakore Saheb 	270
4.—Cataract probe 	273
5.—The same 	273
6.—Cataract Needles (modern). B. B. Fig. 551 and 552	273

The Surgical Instruments of the Hindus.

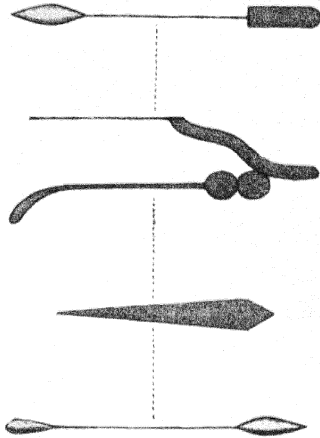
Plate LXXVI.



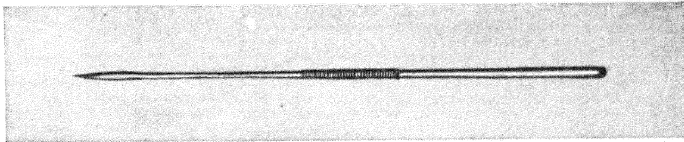
1



2



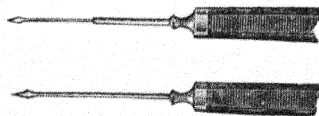
3



4



5



6

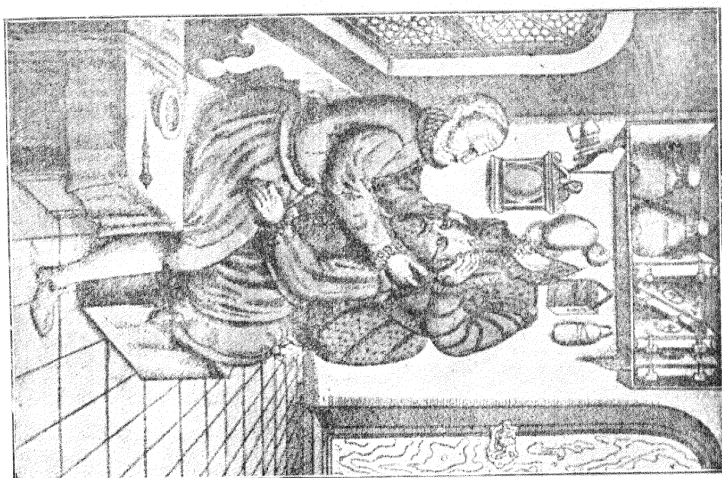
PLATE LXXVII.

OPERATION OF CATARACT.

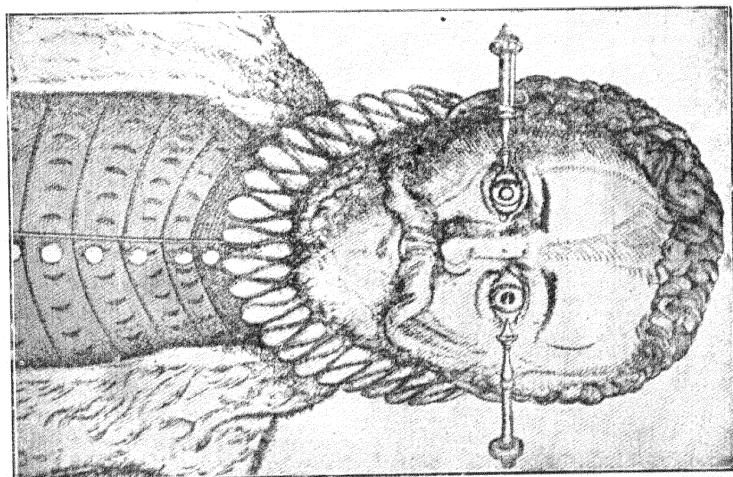
FIGURE.		PAGE.
1.	Operation of cataract as performed by Celsus, Benvenuto and Bartisch	276
2.	The same. I. M. G. 1904. p. 370	277

The Surgical Instruments of the Hindus.

Plate LXXVII



1



2

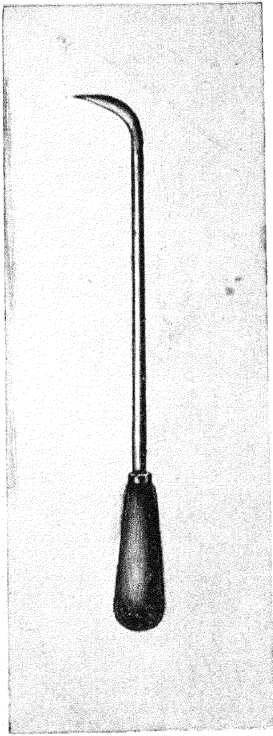
PLATE LXXVIII.

SARPĀSYA.

FIGURE.	PAGE.
1.—Sarpāsyā Śastra or polypus Knife ...	277
2.—Polypus Knife with Scoop. Greeks. Milne. Pl. VIII. Fig. 1. ...	278
3.—Uvula knife, after Albucasis. Milne. Pl. IX. Fig. 4 ...	278

The Surgical Instruments of the Hindus.

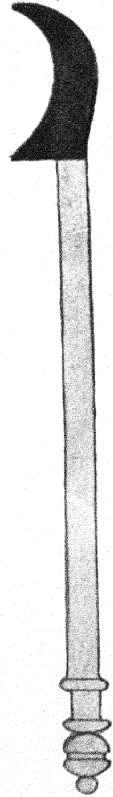
Plate LXXVIII.



1



2



3

PLATE LXXIX.

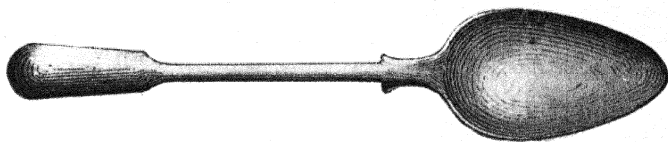
FIGURE.		PAGE.
1.—	Jihvā Nirlekhana or Tongue scraper ...	299
2.—	Spoon	317
3.—	Spoon (modern) A. H. Fig. 9384 ...	317
4.—	Spittoon	317
	—The same (modern) A. H. Fig. 9956 ...	317

The Surgical Instruments of the Hindus.

Plate LXXIX.



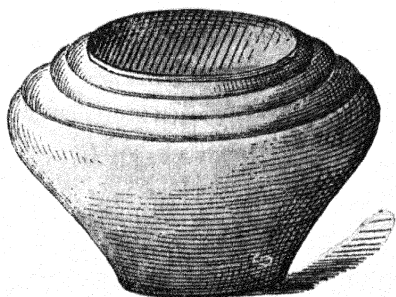
1



2



3



4



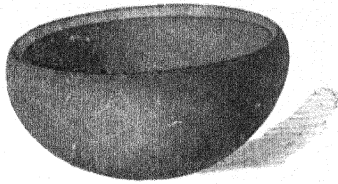
5

PLATE LXXX.

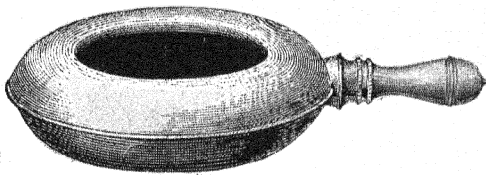
FIGURE.	PAGE.
1.—Bedpan ... ... ...	... 317
2.—The same (modern) A. H. Fig. 9181 ...	... 317
3.—Pus basin ... ... ...	... 317
4.—Bleeding basin (Modern) A. H. Fig. 9235	... 317
5.—The same. A. H. Fig. 9235 ...	... 317
6.—Urinal ... ... ...	... 317
7.—The same, male. (modern) A. H. Fig. 9632	... 317
8.—The same, female. (modern) A. H. Fig. 9638	... 317

The Surgical Instruments of the Hindus.

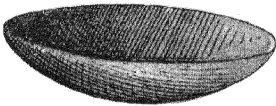
Plate LXXX.



1



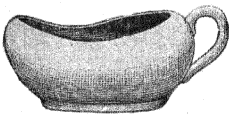
2



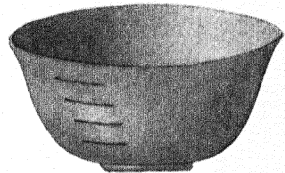
3



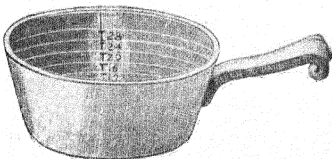
4



5



6



7



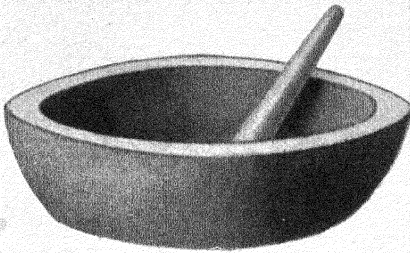
8

PLATE LXXXI.

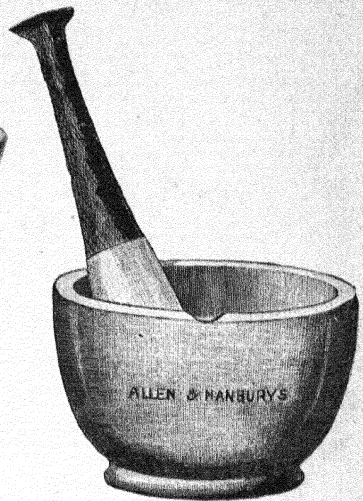
FIGURE.	PAGE.
1.—Khalā 	318
2.—Pestle and mortar (modern) A. H. Fig. 9502 ...	318
3.—Balance or Mānadaṇḍa 	324
4.—Peṣana Śilā or Grind stone 	327
5.—Stone slab and muller 	327
6.—Sukti 	326
7.—Medicine spoon (Modern) A. H. Fig. 9379 ...	326

The Surgical Instruments of the Hindus.

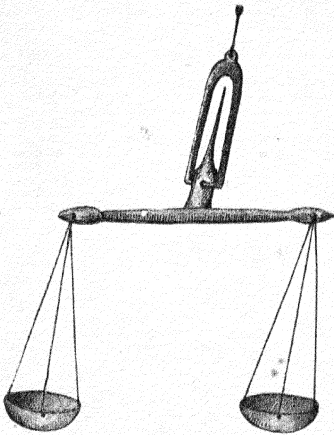
Plate LXXXI.



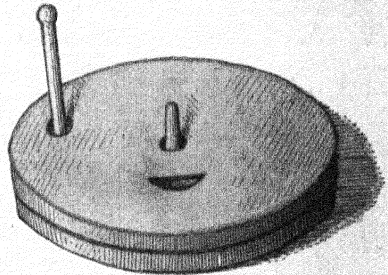
1



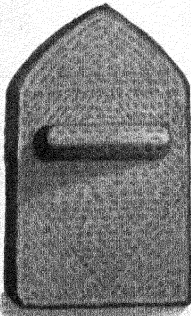
2



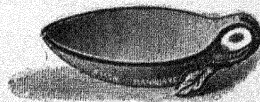
3



4



5



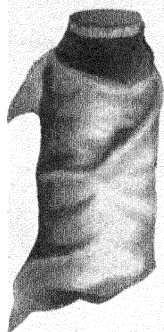
7

PLATE LXXXII.

FIGURE.		PAGE.
1.—Hot vessels	... ..	321
2.—Vapour Bath	... ..	322
3.—The same (modern). B. B. Fig. 407	... ..	322
4.—Cloth tent	... ..	322
5.—Droni	... ..	323

The Surgical Instruments of the Hindus.

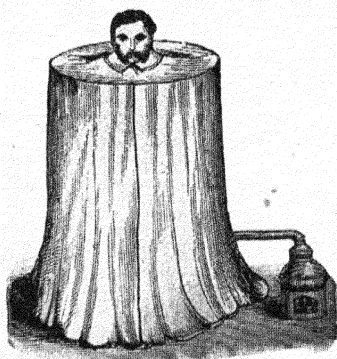
Plate LXXXII.



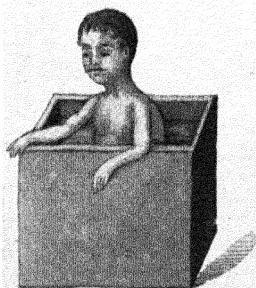
1



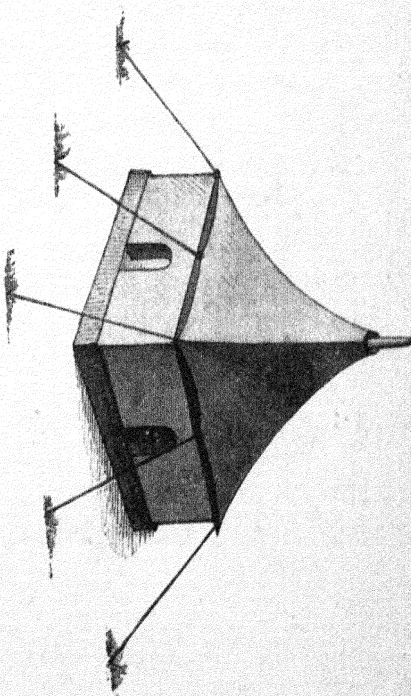
2



3



5



4

