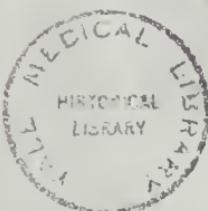


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THE
Surgical Instruments of the Hindus

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.

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Life Member and Professor of Botany, Indian Association
for the Cultivation of Science, Examiner,
Calcutta University.*

Griffith Prize Essay for 1909

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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,
Culcutta, 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.
- Welleome : Third Report of the Wellcome Research
Laboratories at the Gordon Memorial College,
Khartoum.
- White : The Veterinary Art. By James White. 1851.
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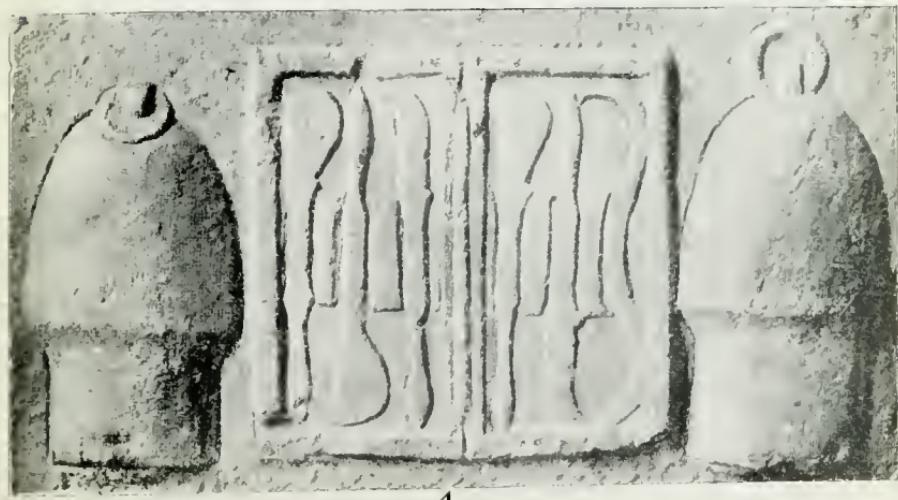
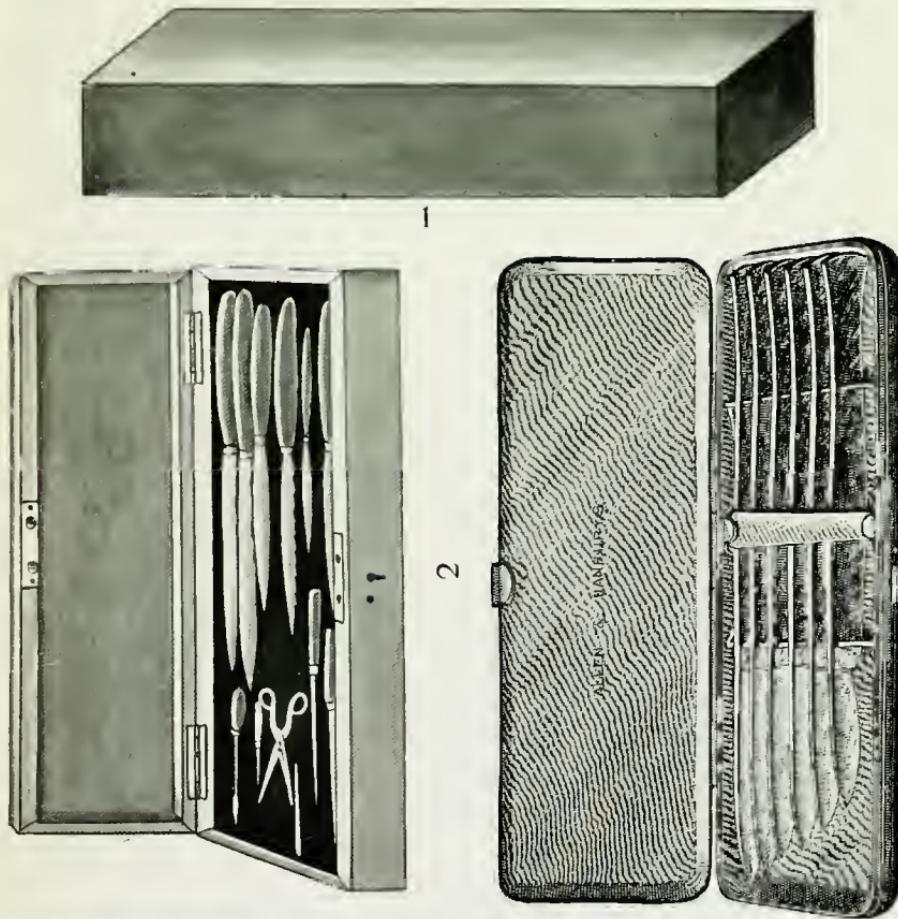
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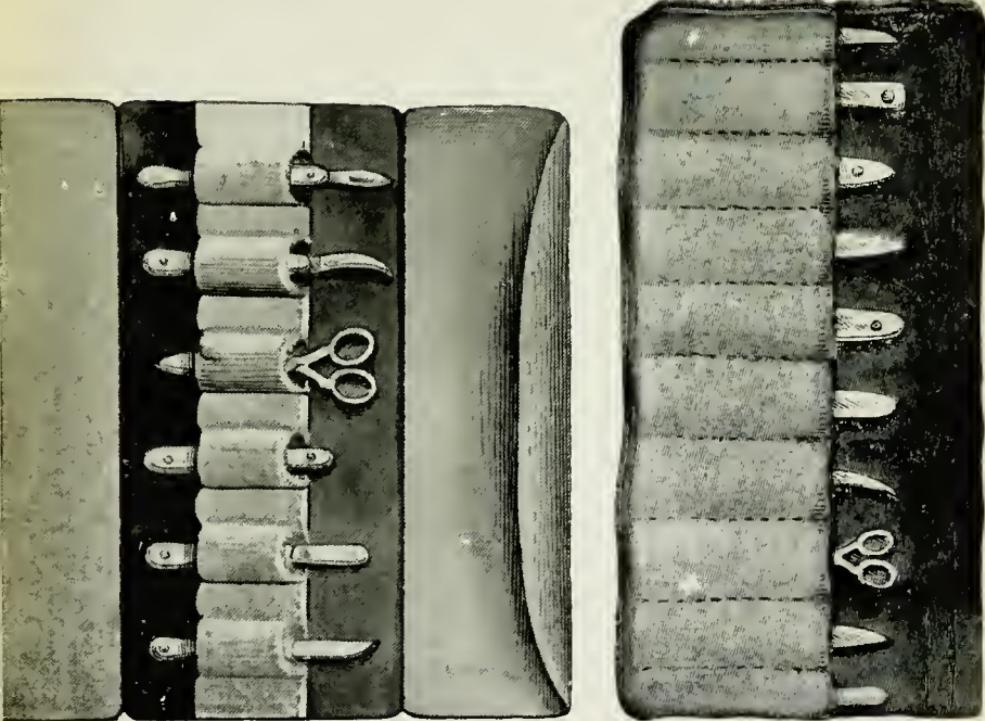
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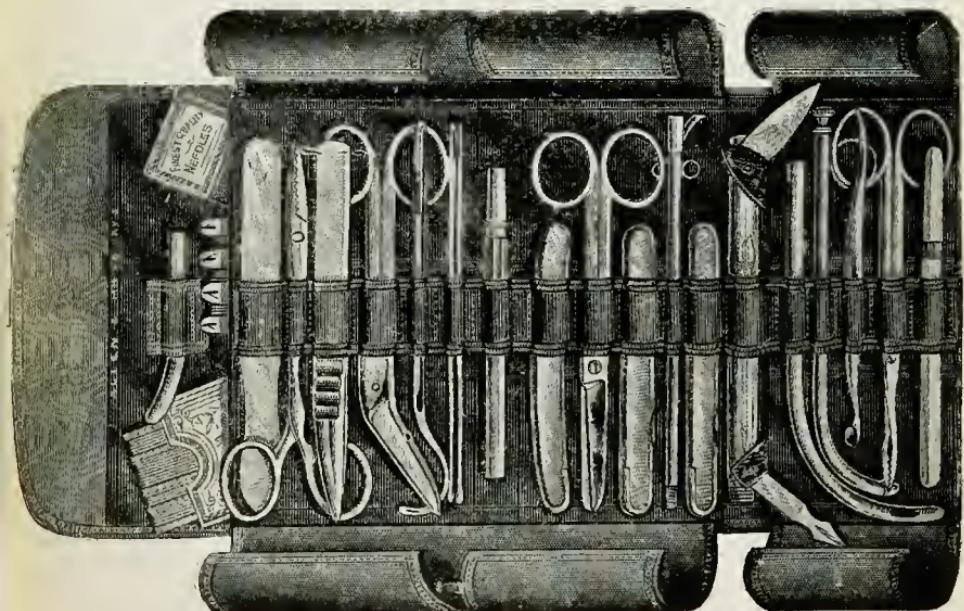
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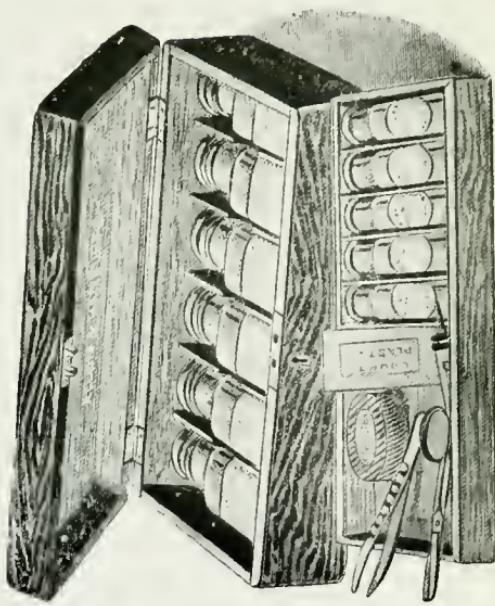


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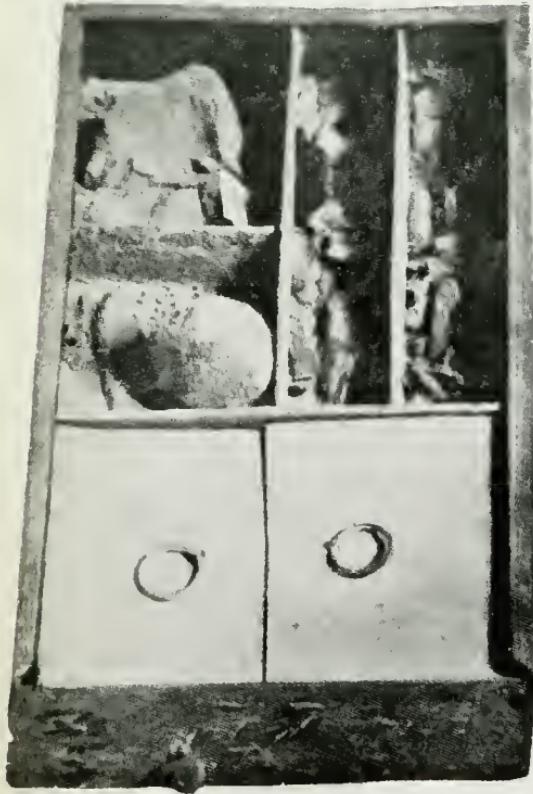
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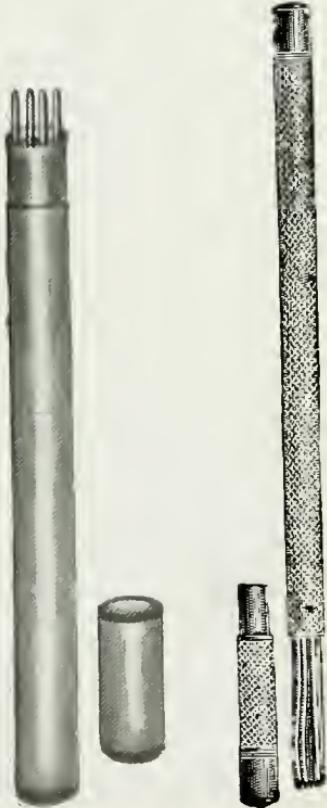
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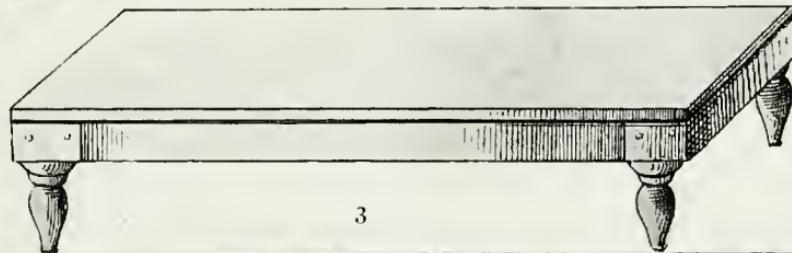
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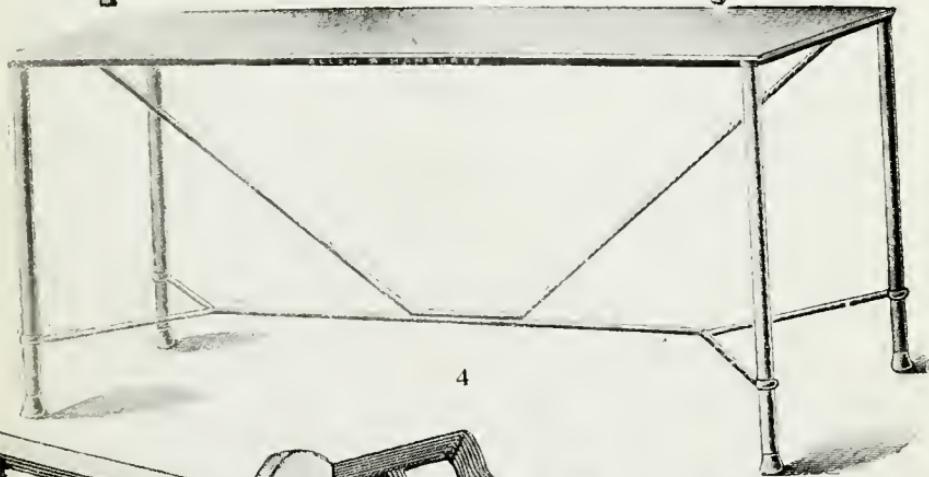
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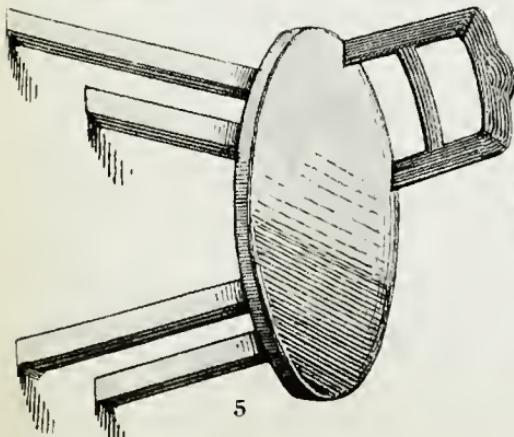
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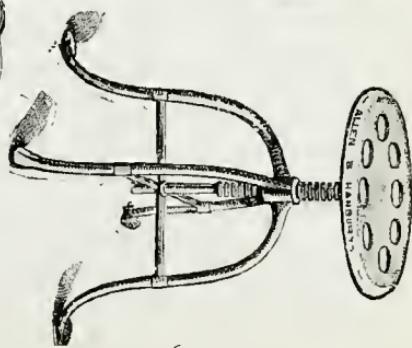
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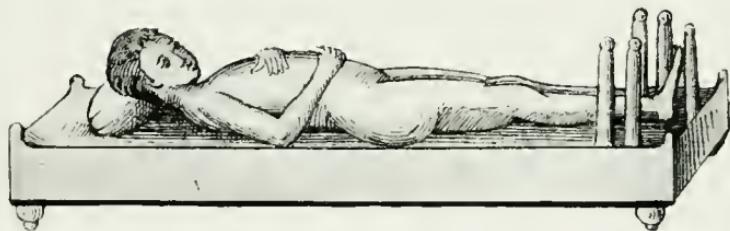
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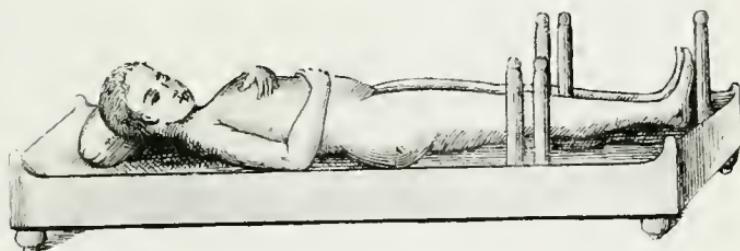
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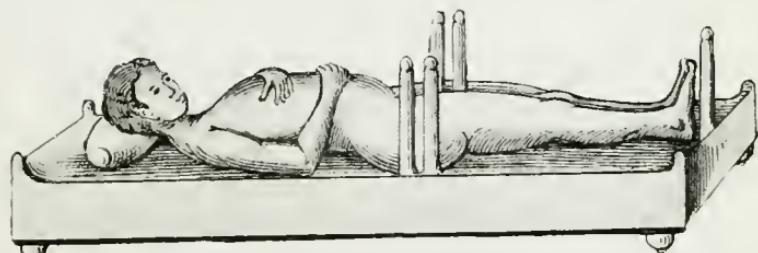
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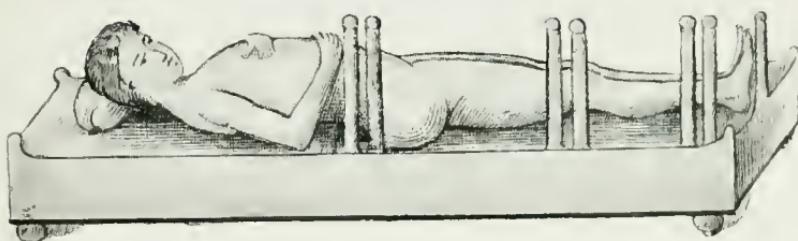
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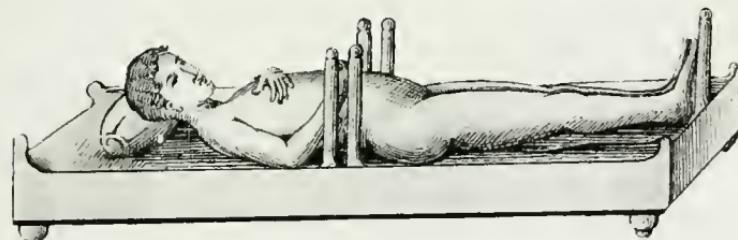
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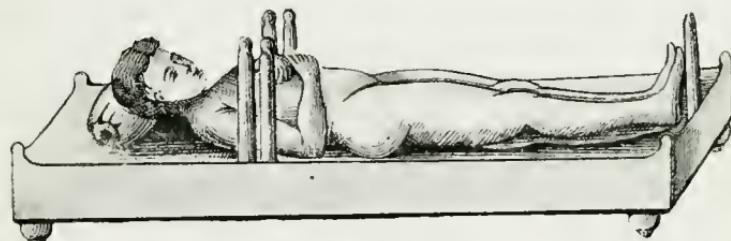
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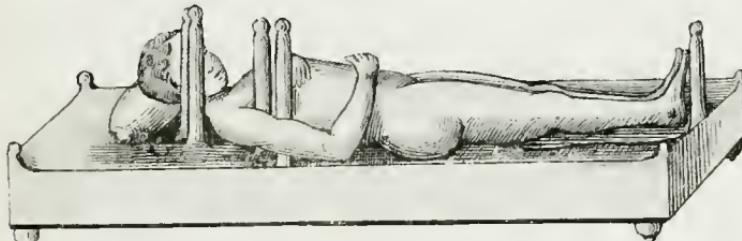
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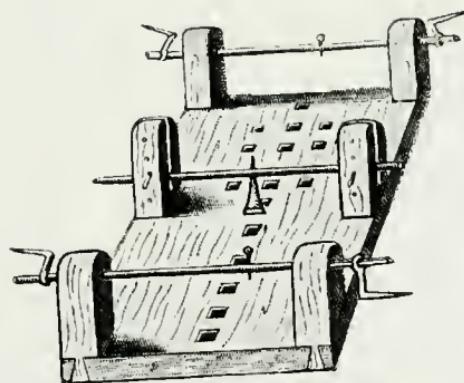
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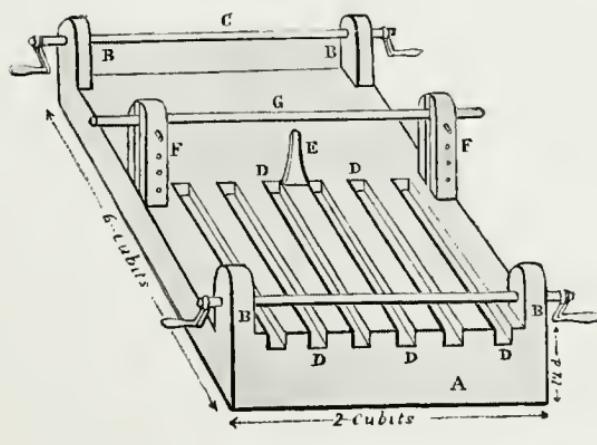
Adams. Vol. II. Pl. IV. Fig. 1 & 2.

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Plate VJI.



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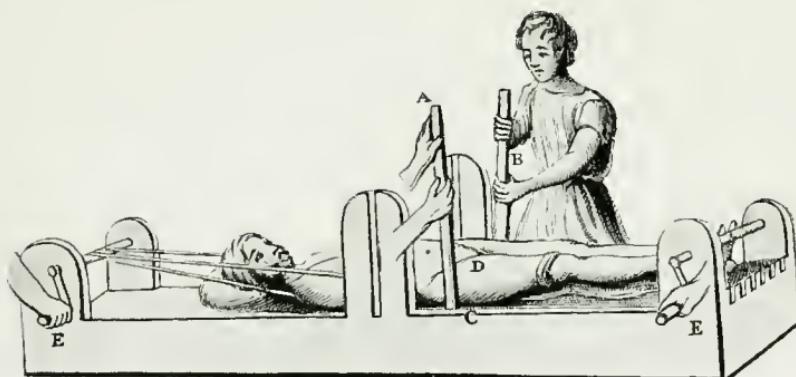
- A. A lever applied to the uates of the luxated side, and acting from without inwards, in order to bring the head of the bone into its cavity.
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- C. Grove in which the end of the lever A takes its point of support.
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Adams. Vol. II. Pl. V. Fig. 1.

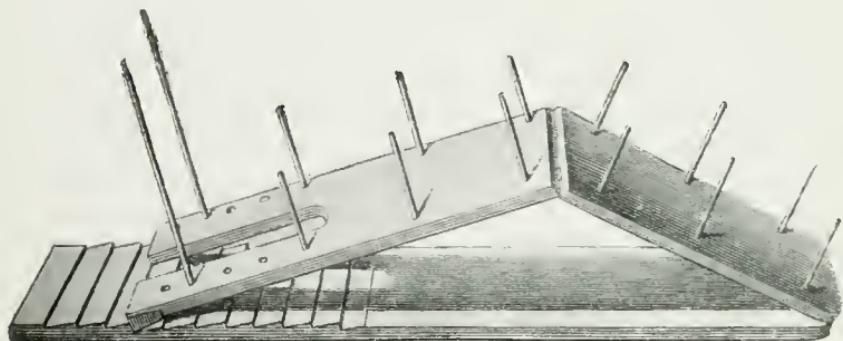
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Plate VJII.



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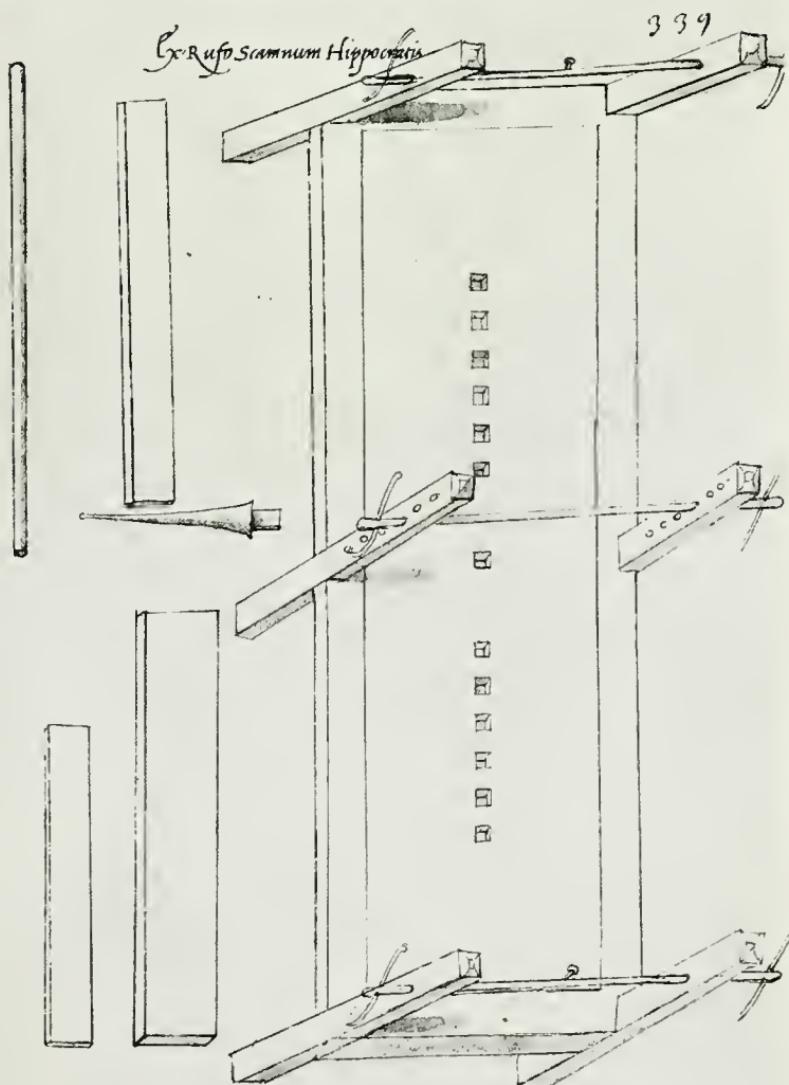
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Plate IX.



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THE SURGICAL INSTRUMENTS OF THE HINDUS.

PLATE X.

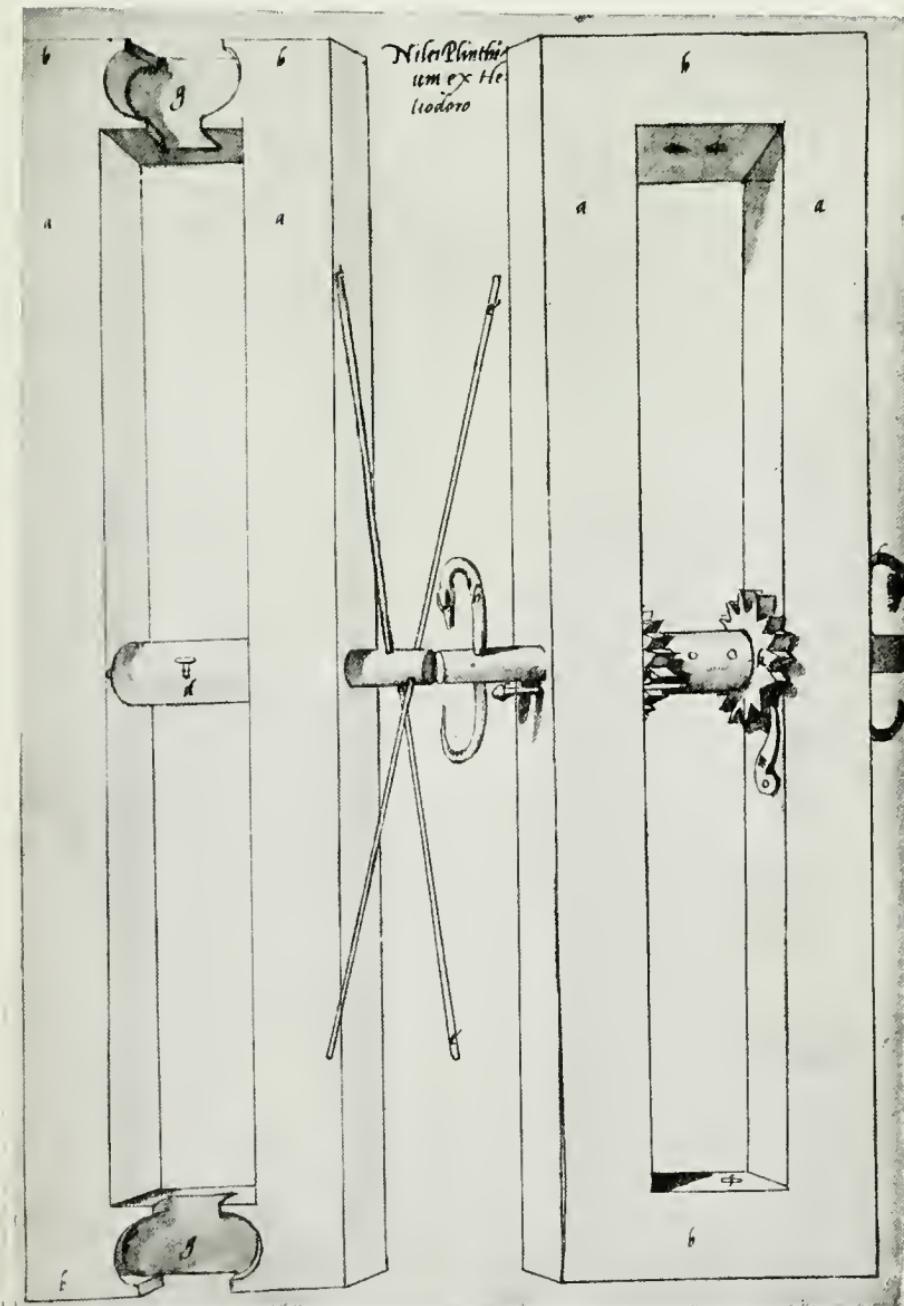
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Plate X.



THE SURGICAL INSTRUMENTS OF THE HINDUS.

PLATE XI.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

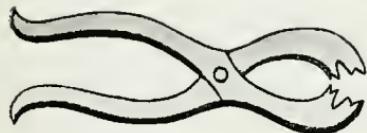
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The Surgical Instruments of the Hindus.

Plate XI



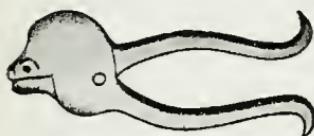
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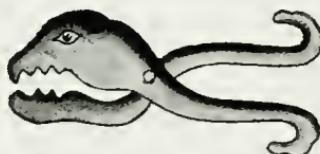
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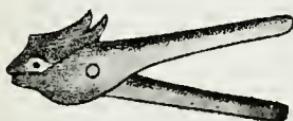
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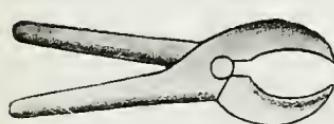
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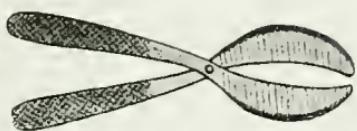
PLATE XII.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

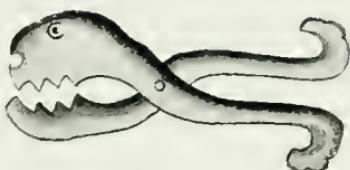
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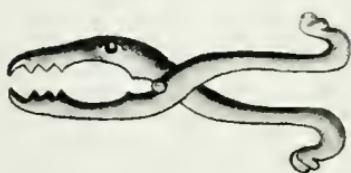
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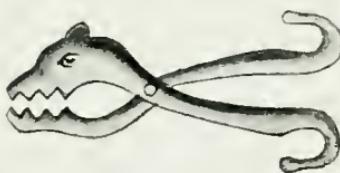
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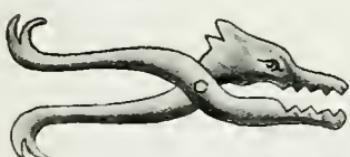
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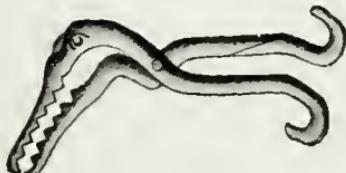
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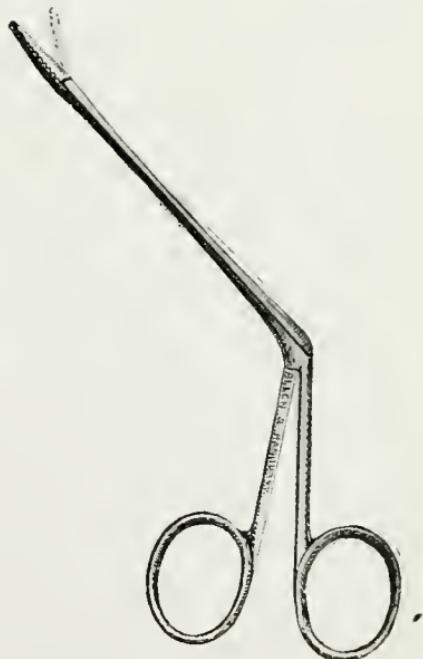
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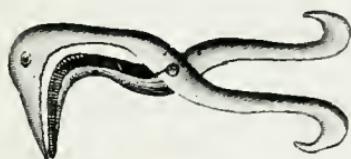
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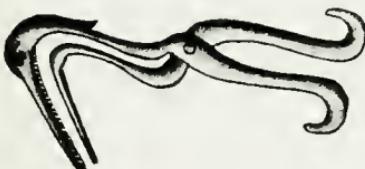
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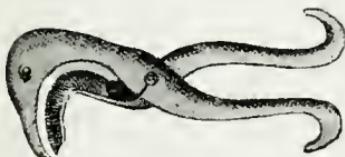
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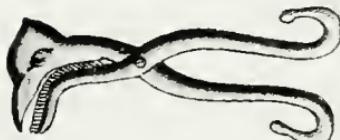
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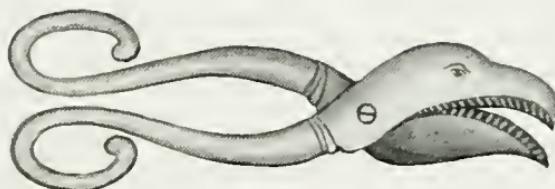
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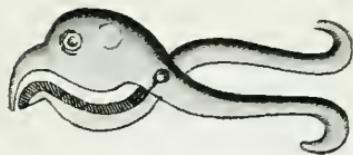
PLATE XIV.

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS.

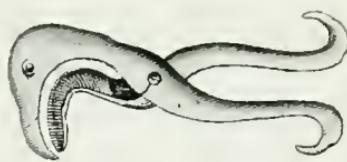
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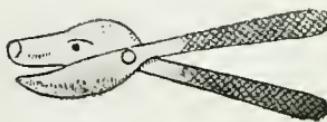
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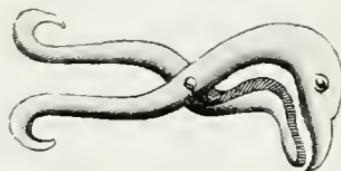
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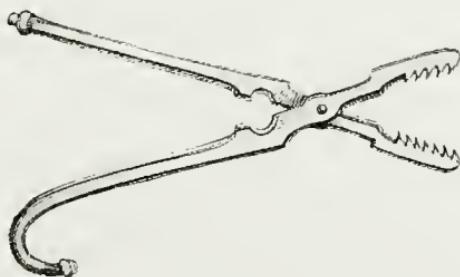
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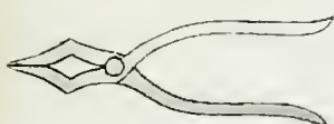
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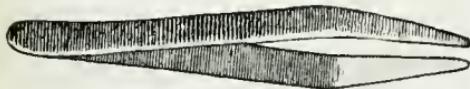
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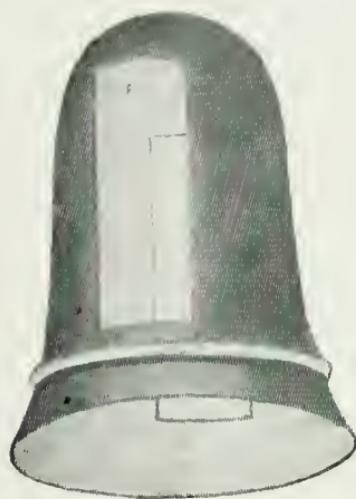
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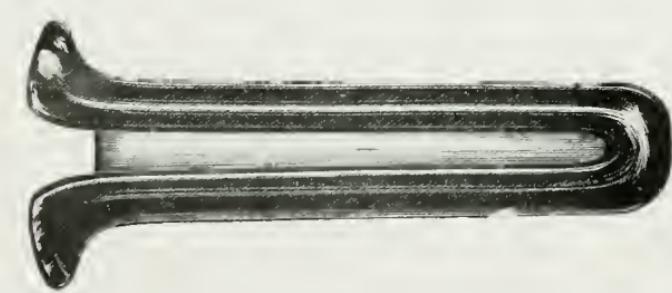
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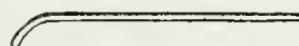
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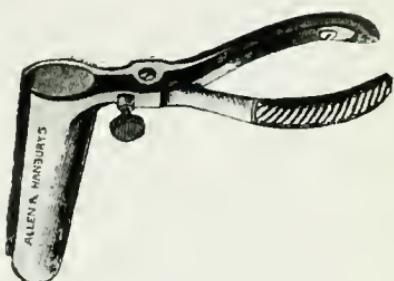
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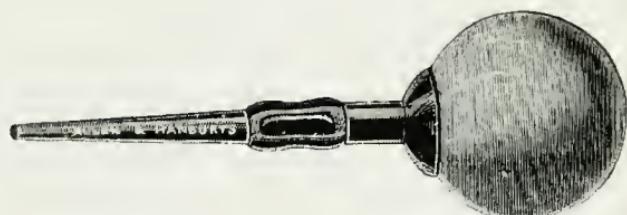
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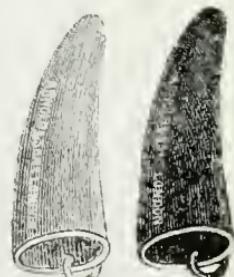
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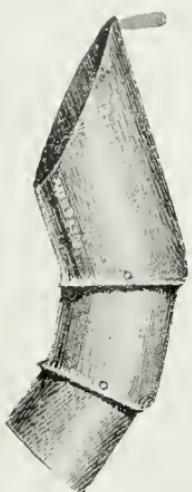
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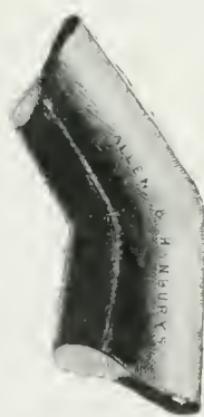
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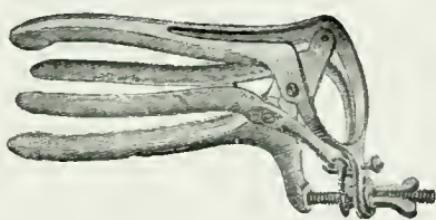
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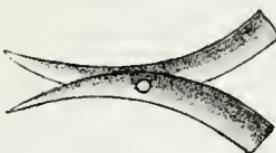
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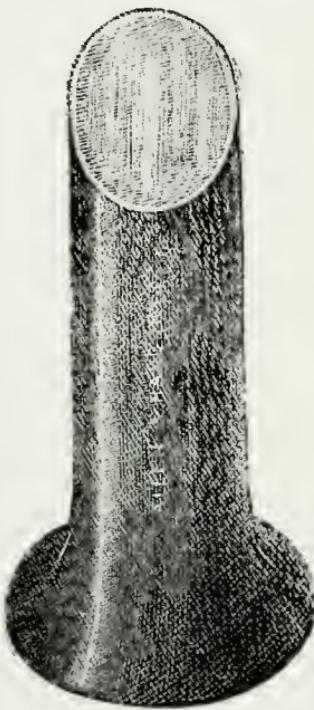
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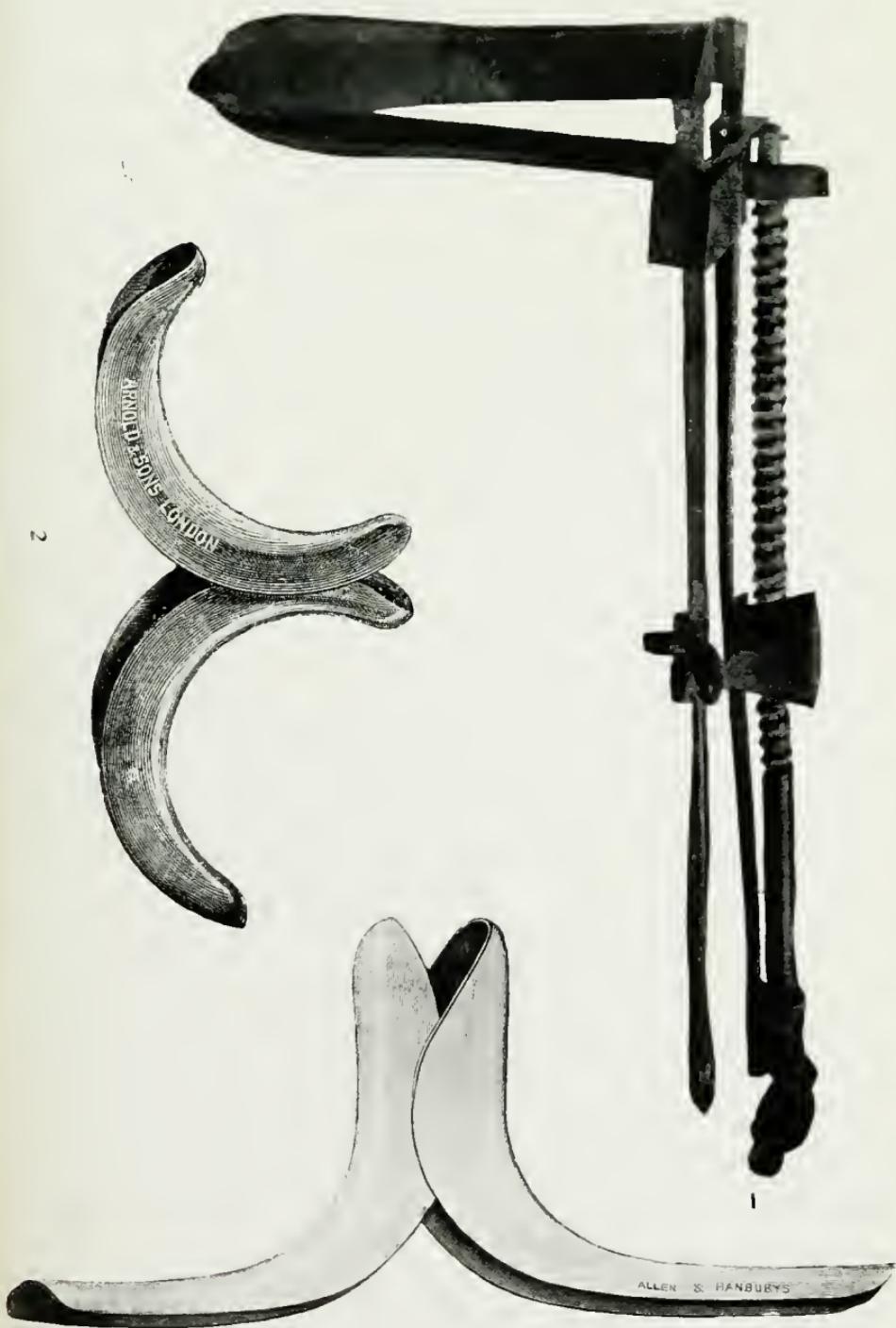
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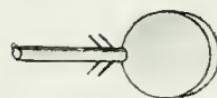
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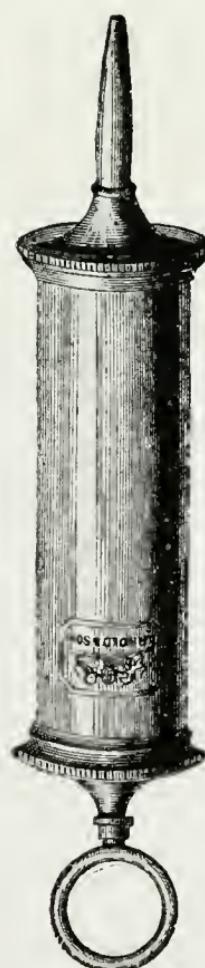
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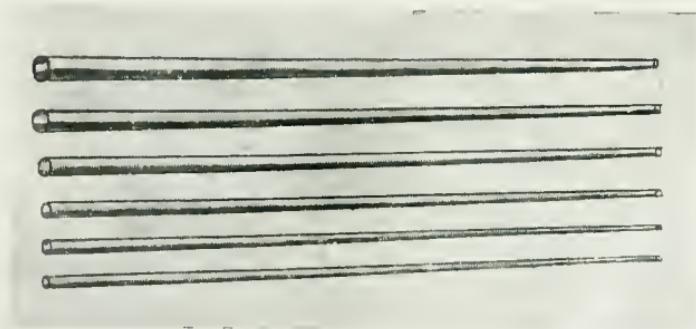
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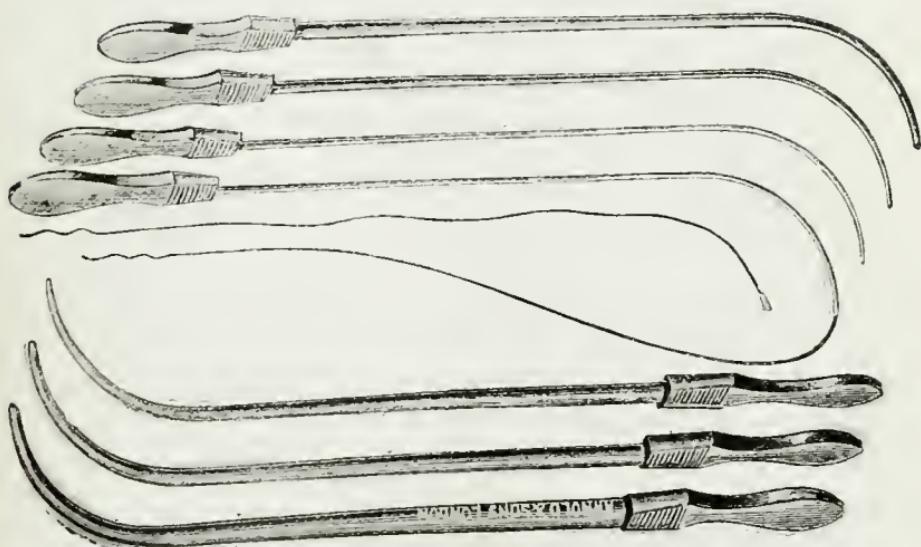
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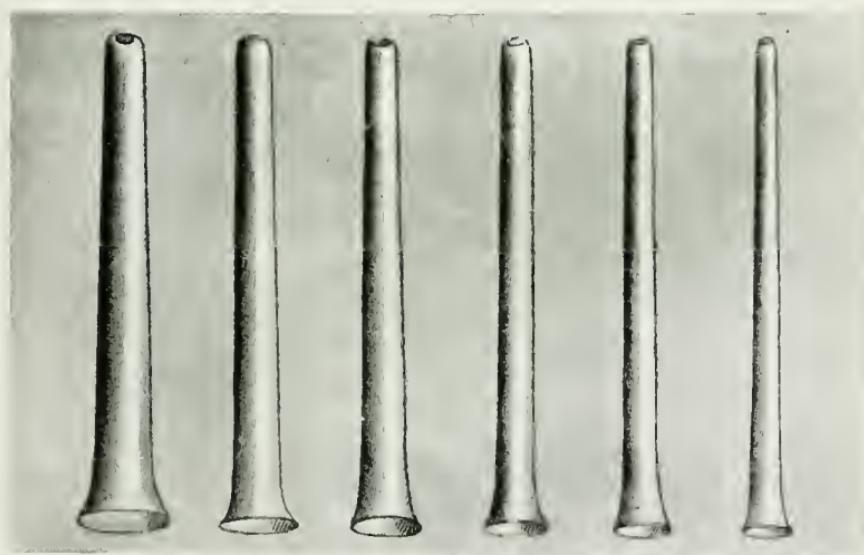
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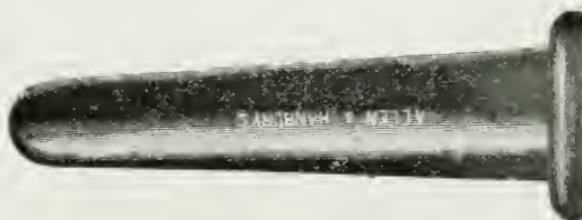
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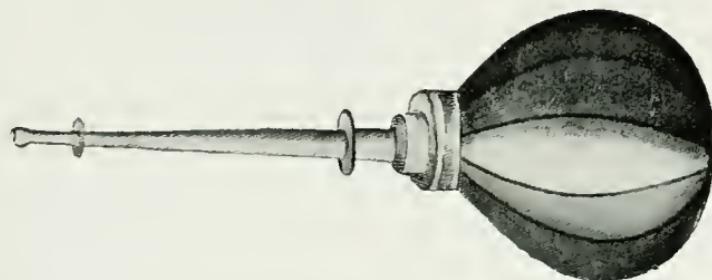
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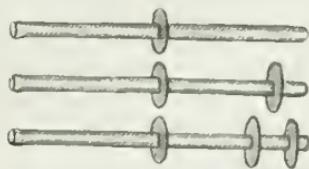
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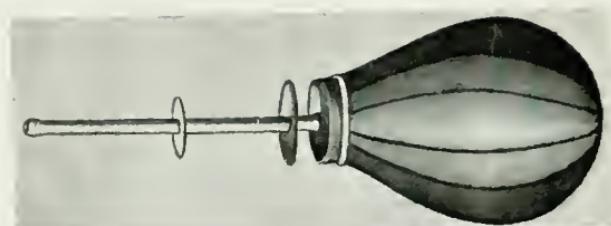
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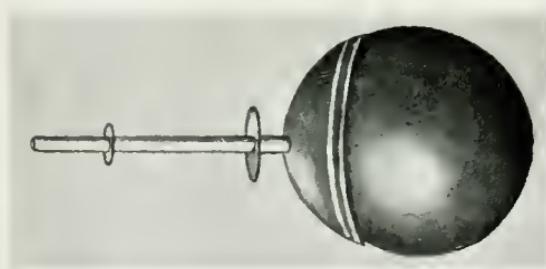
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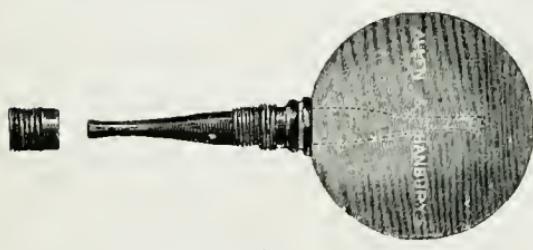
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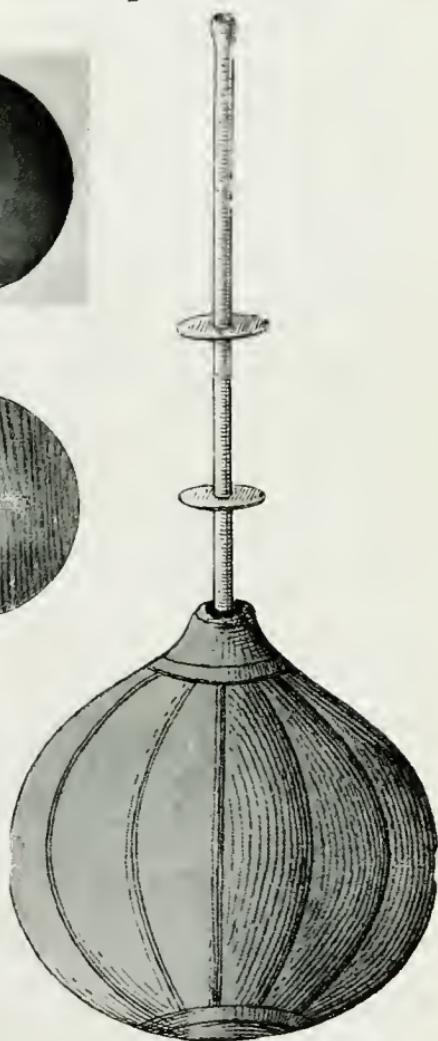
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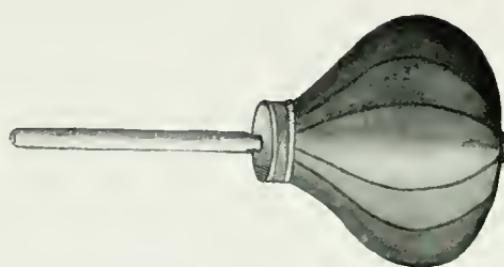
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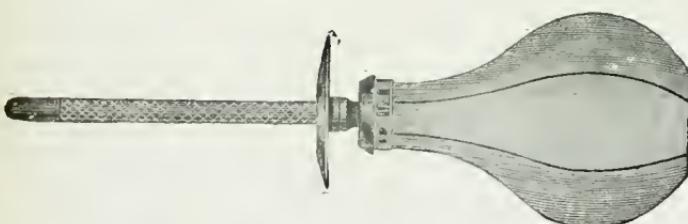
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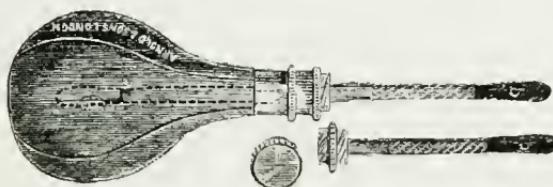
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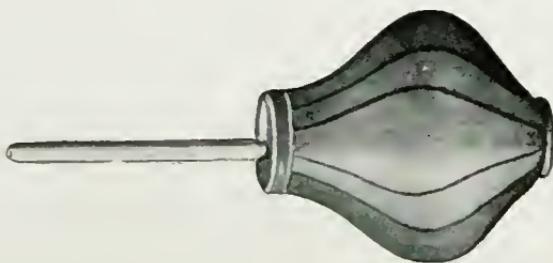
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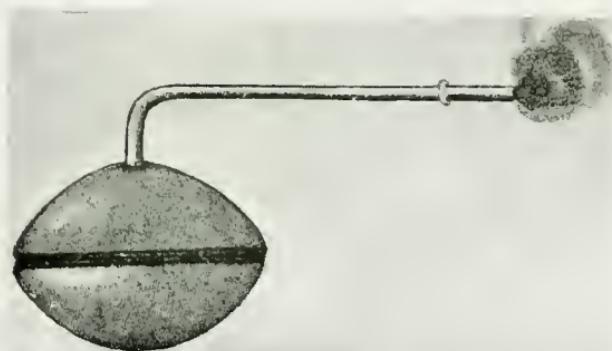
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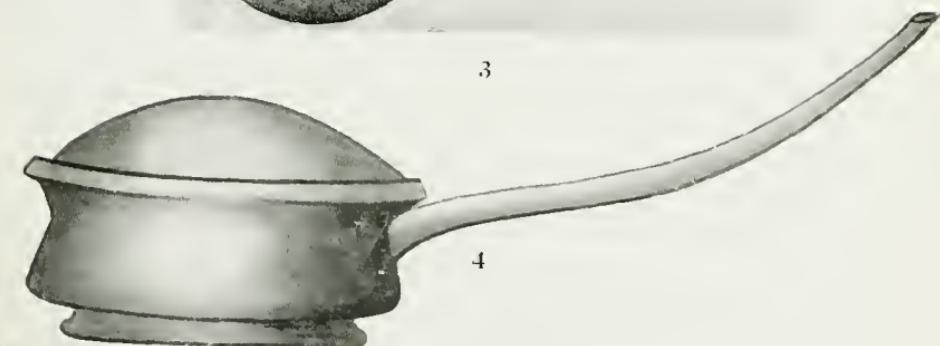
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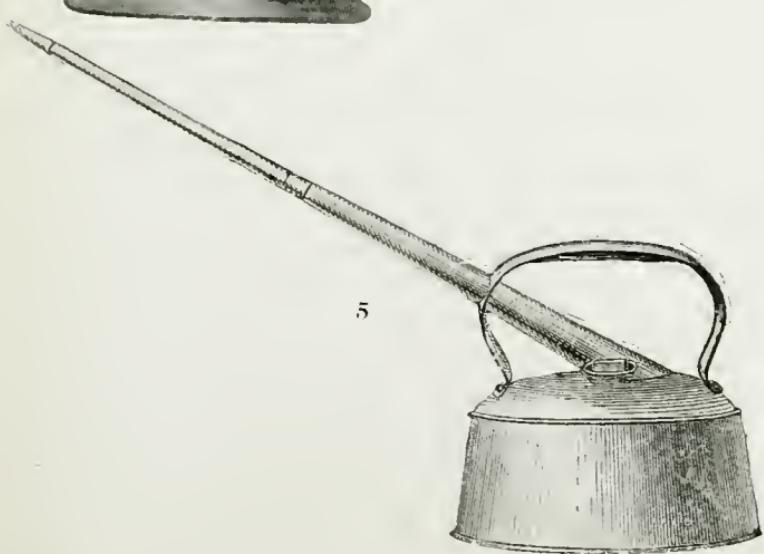
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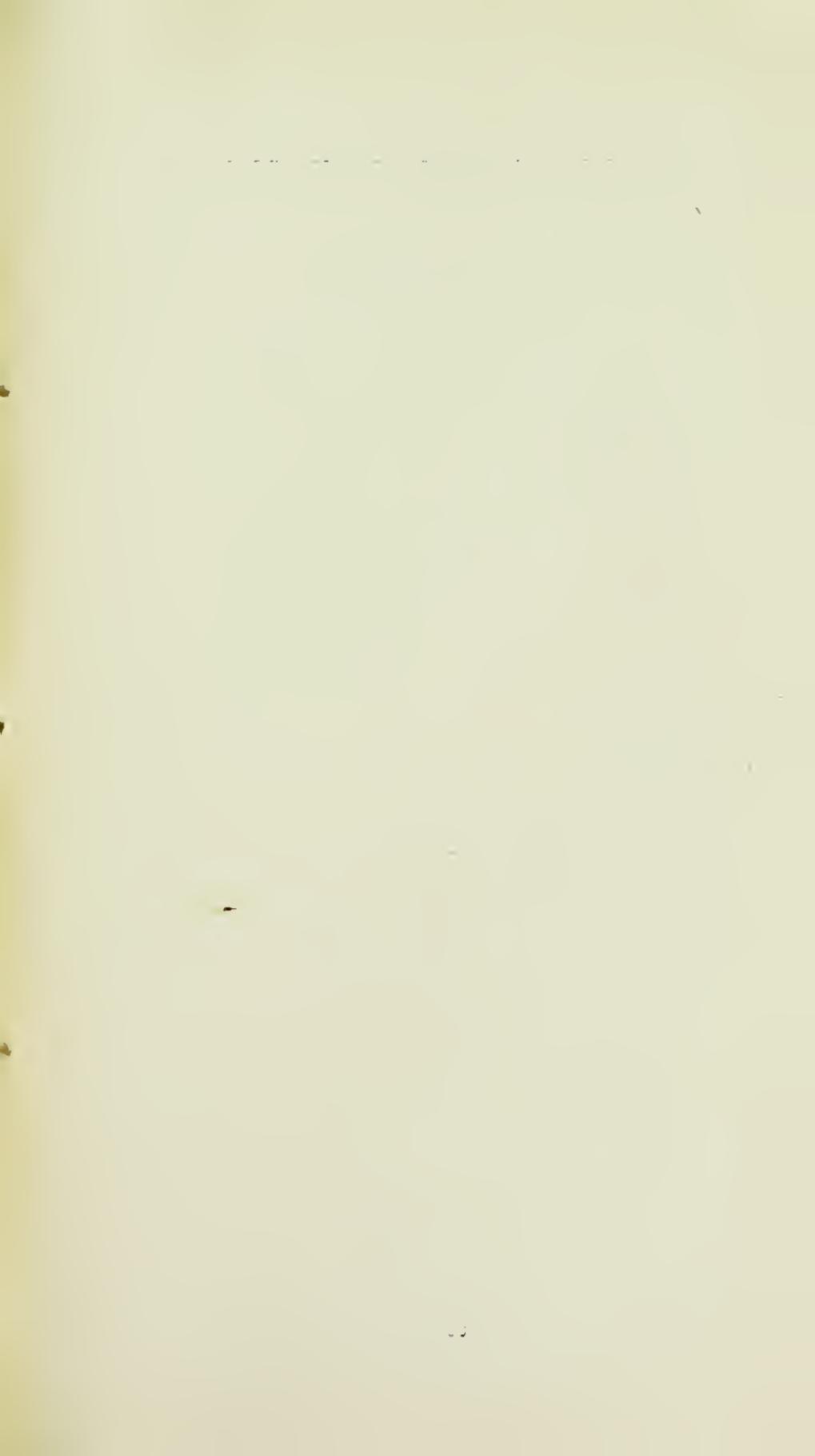
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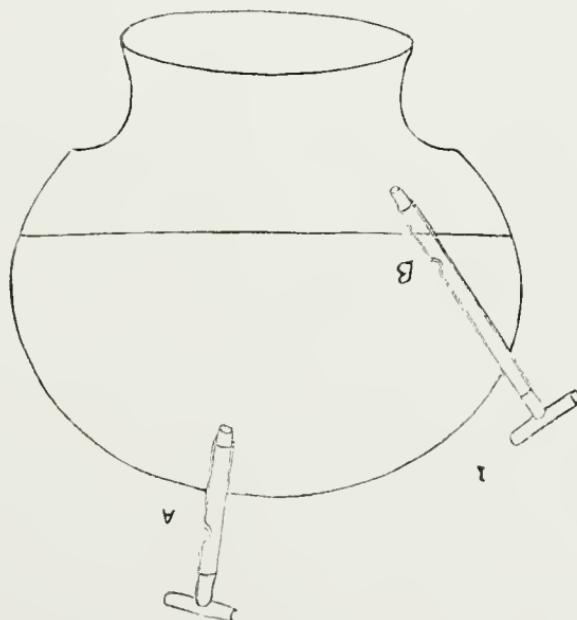
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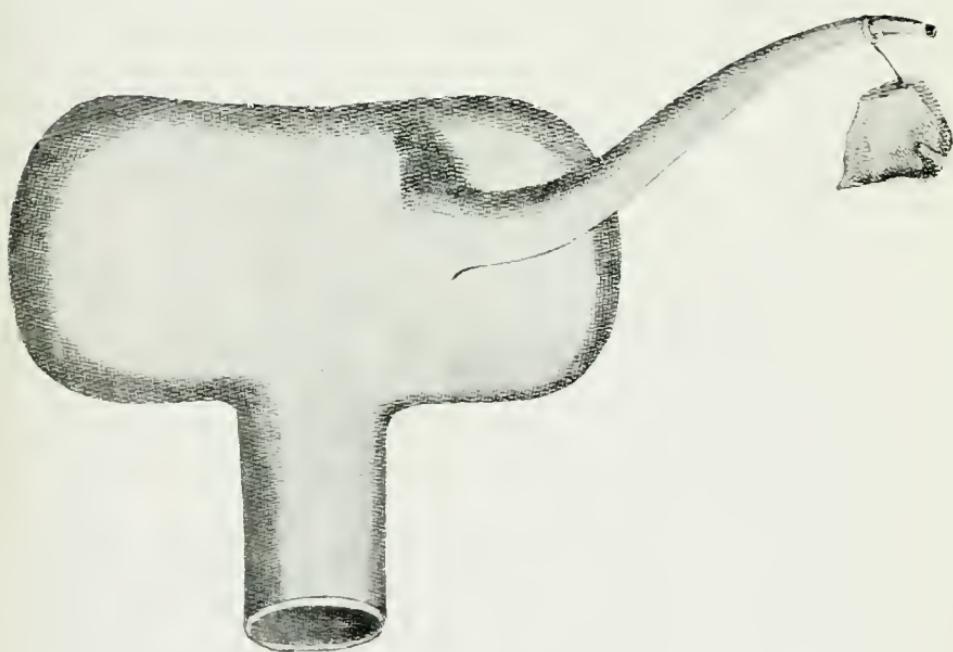
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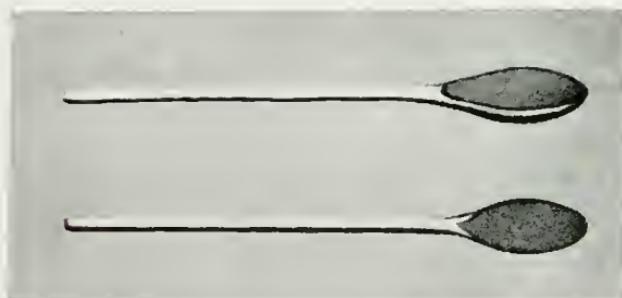
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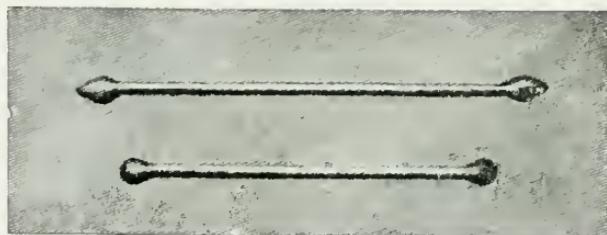
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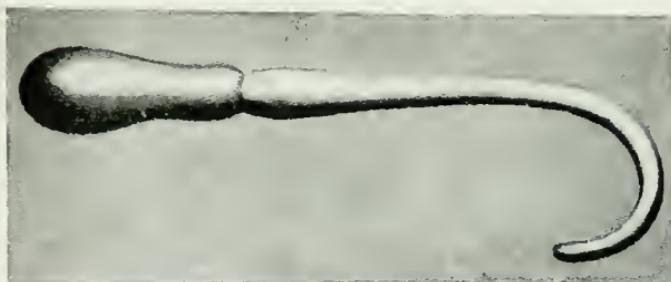
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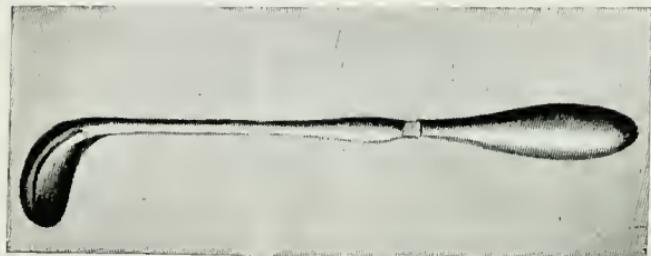
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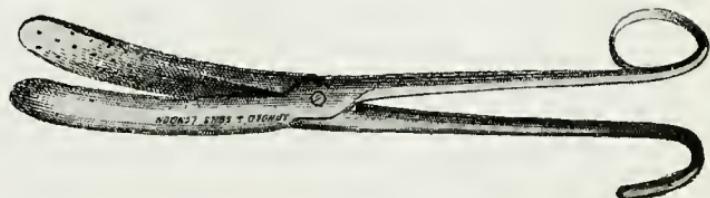
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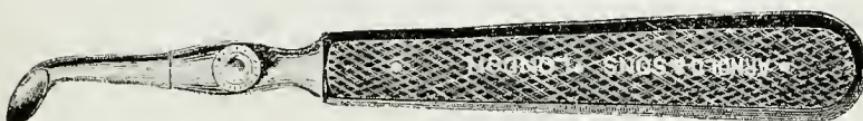
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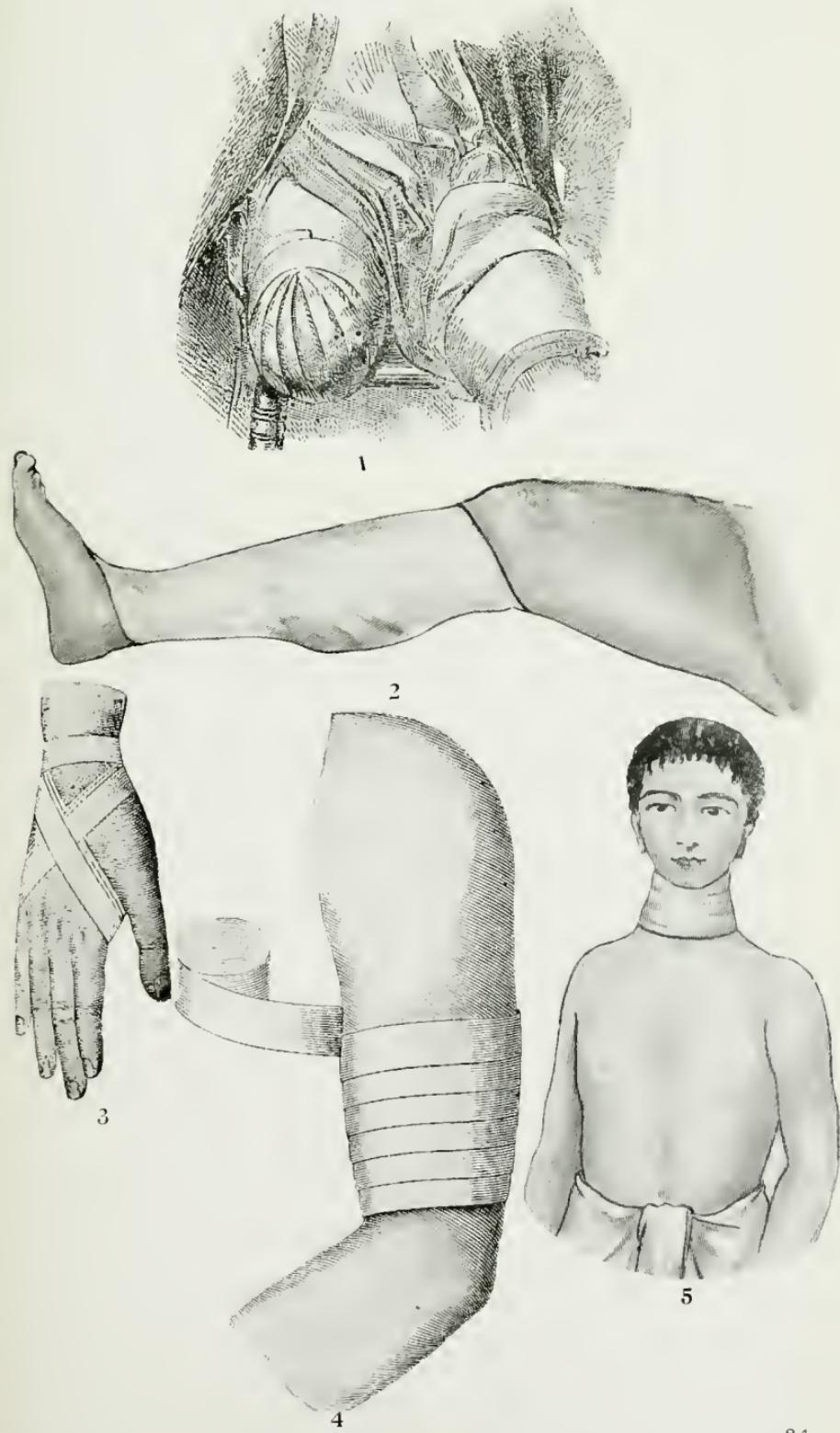
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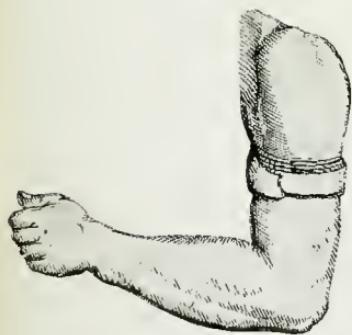
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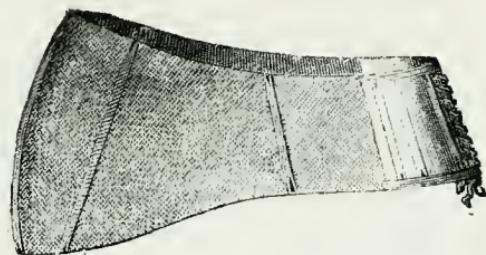
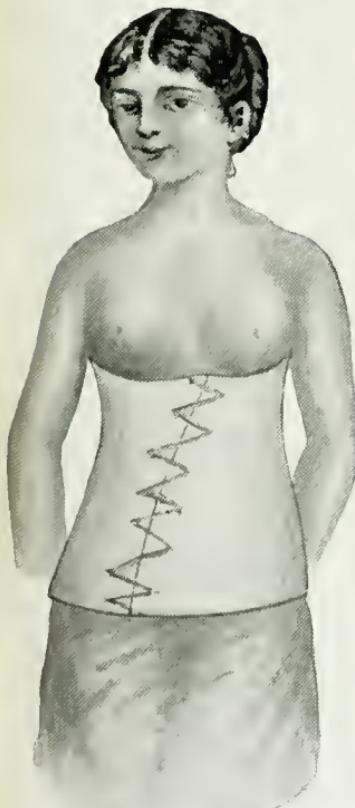
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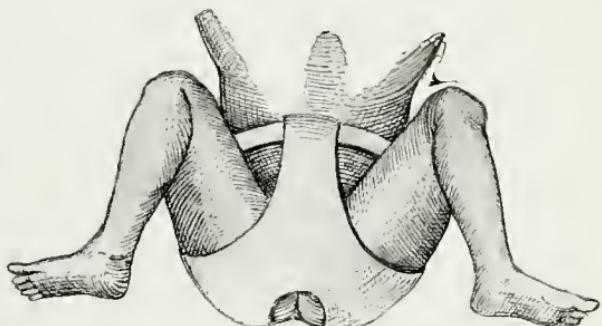
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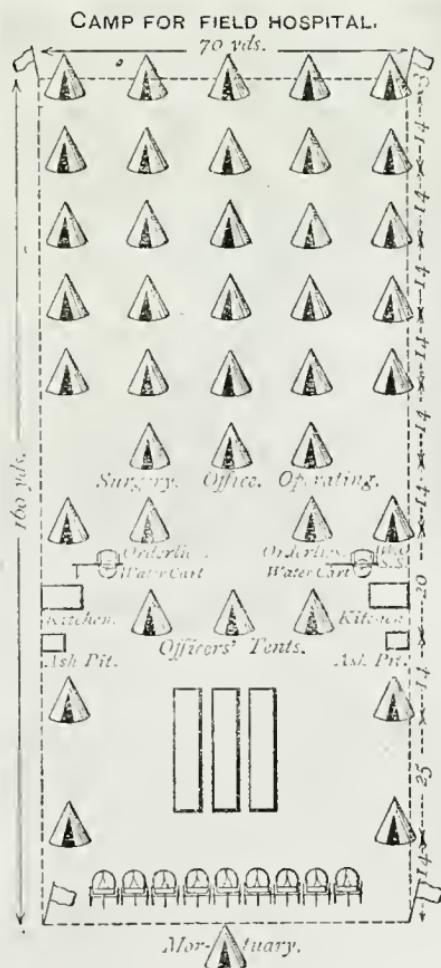
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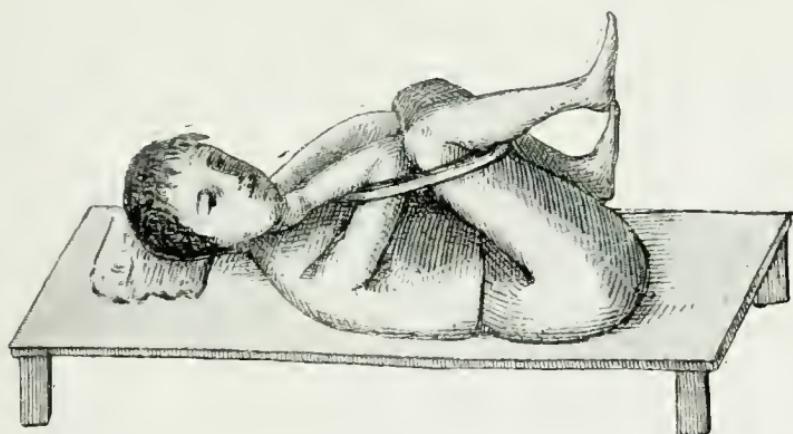
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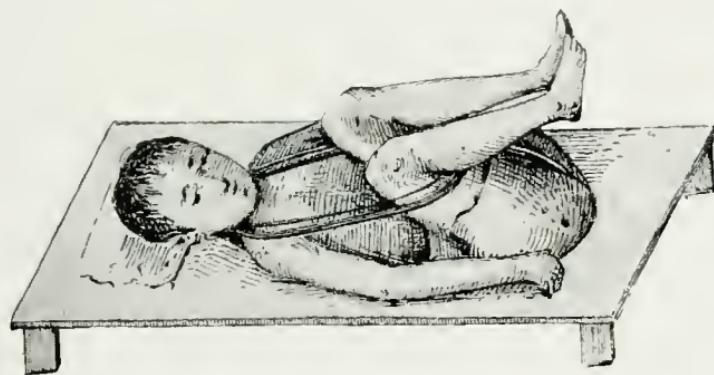
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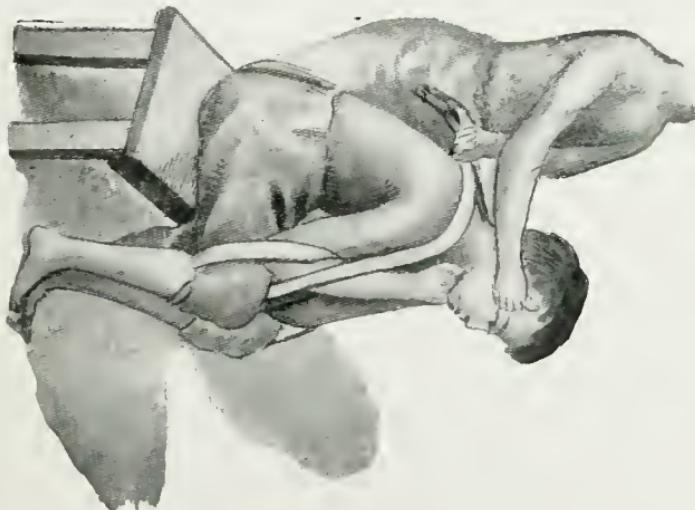
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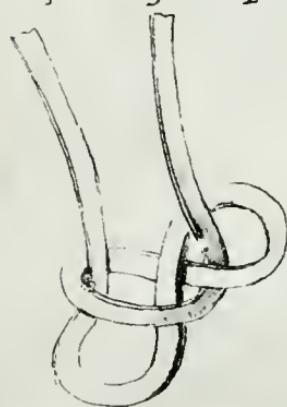
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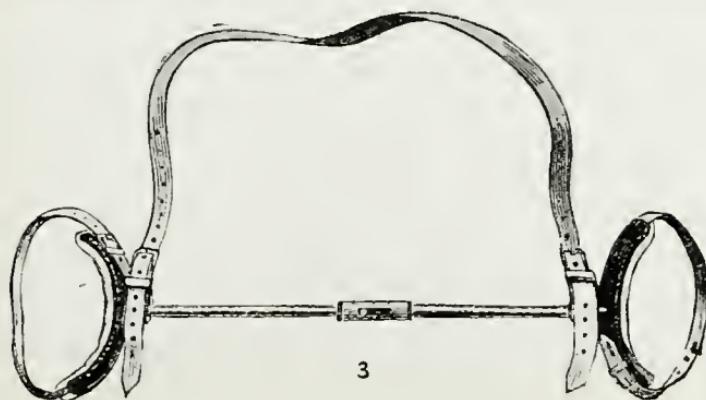
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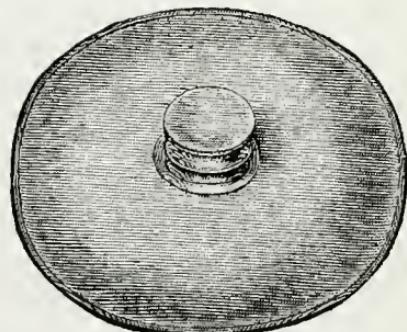
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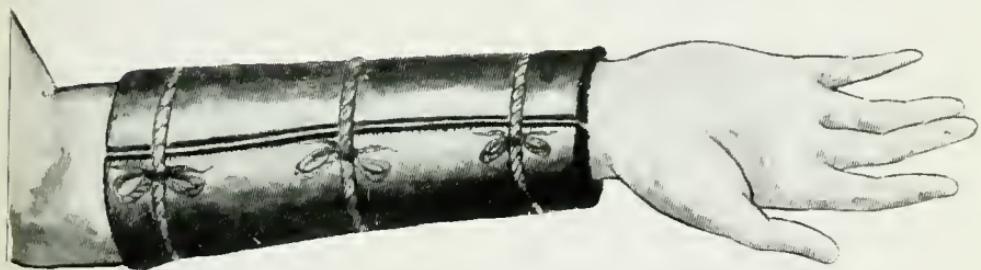
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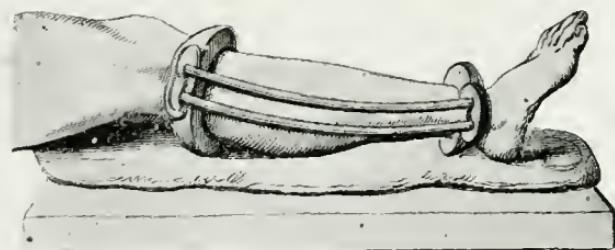
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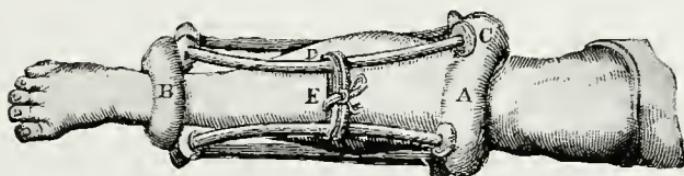
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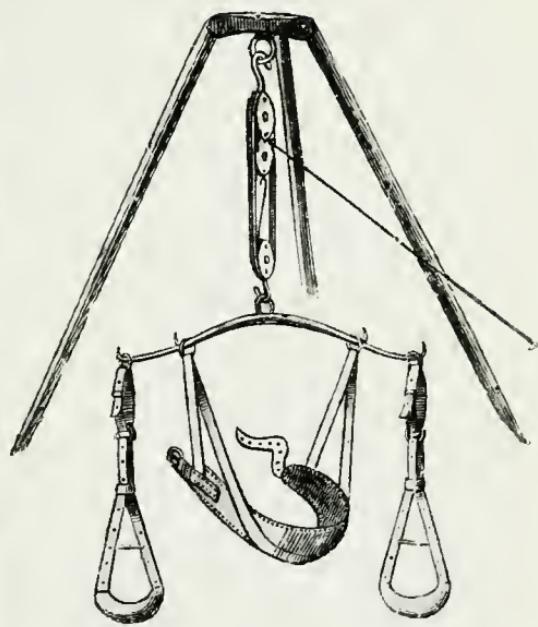
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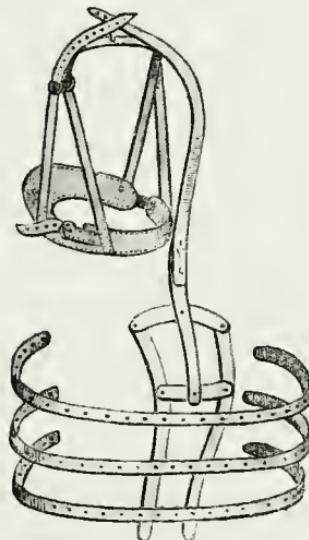
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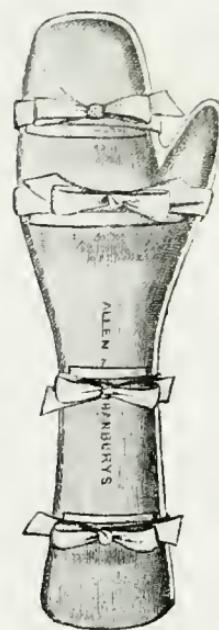
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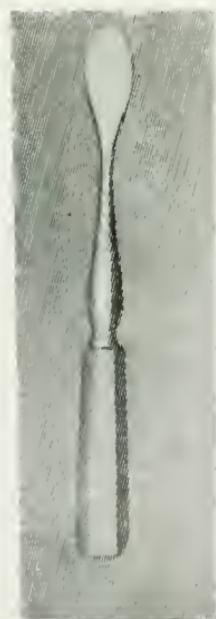
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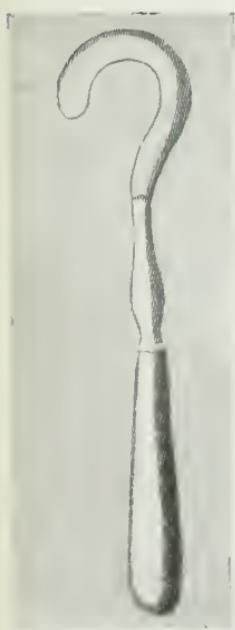
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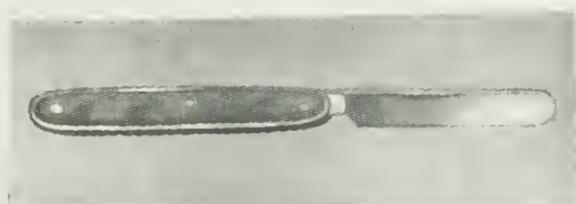
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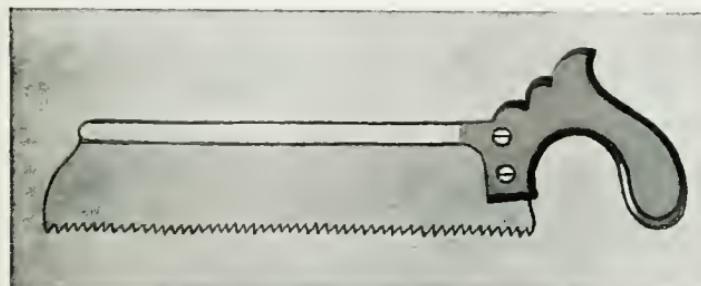
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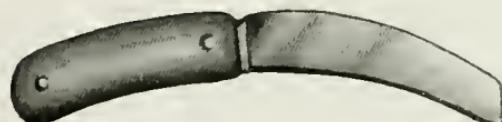
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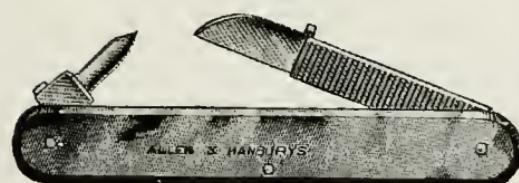
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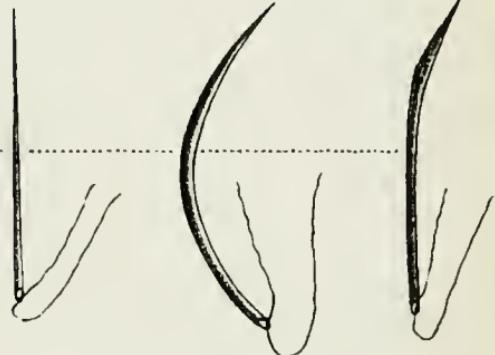
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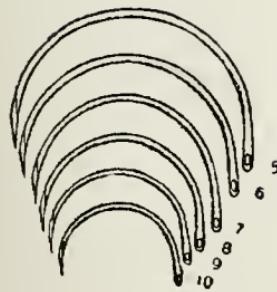
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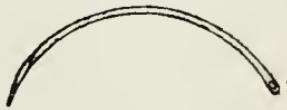


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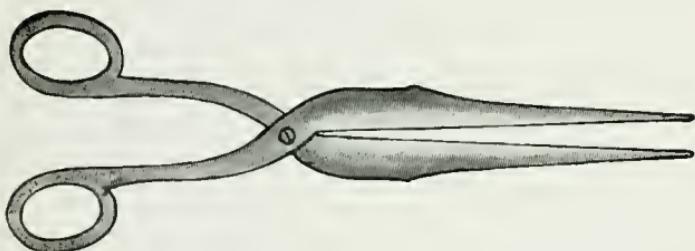
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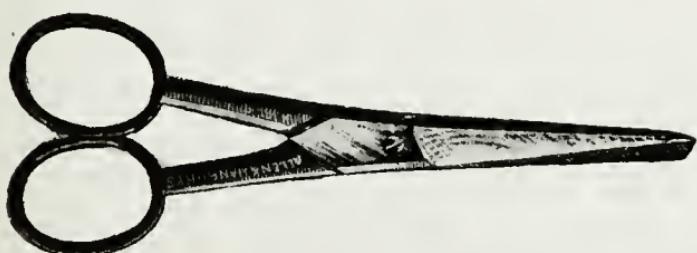
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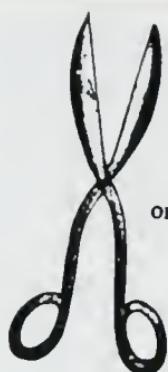


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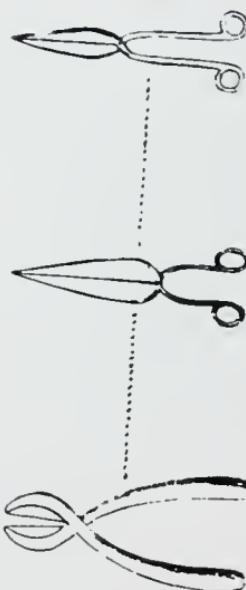
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Antarmukha Śastra
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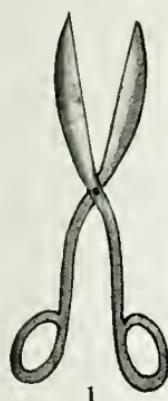
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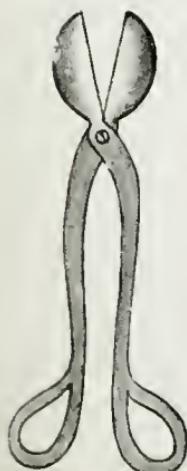
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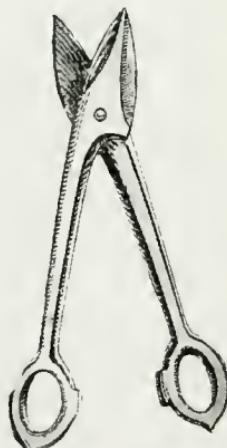
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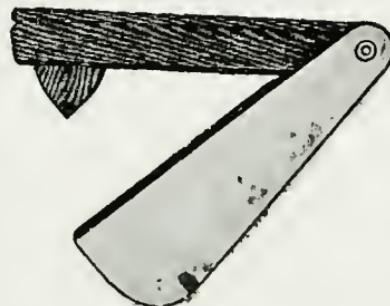
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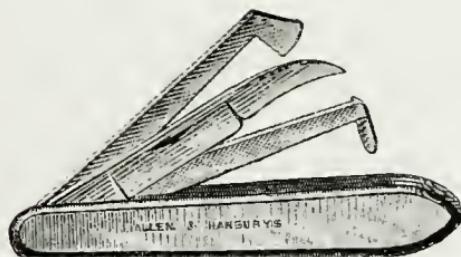
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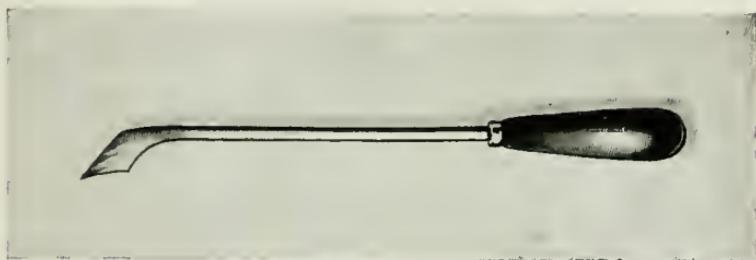
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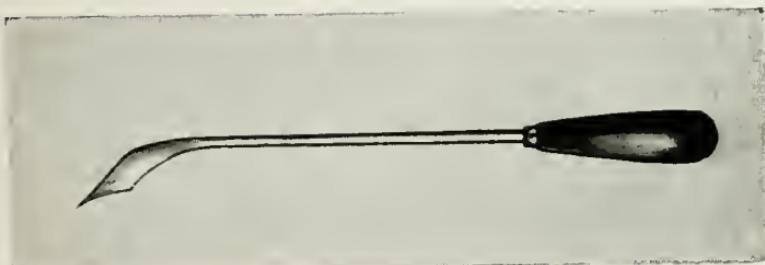
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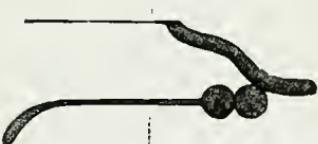
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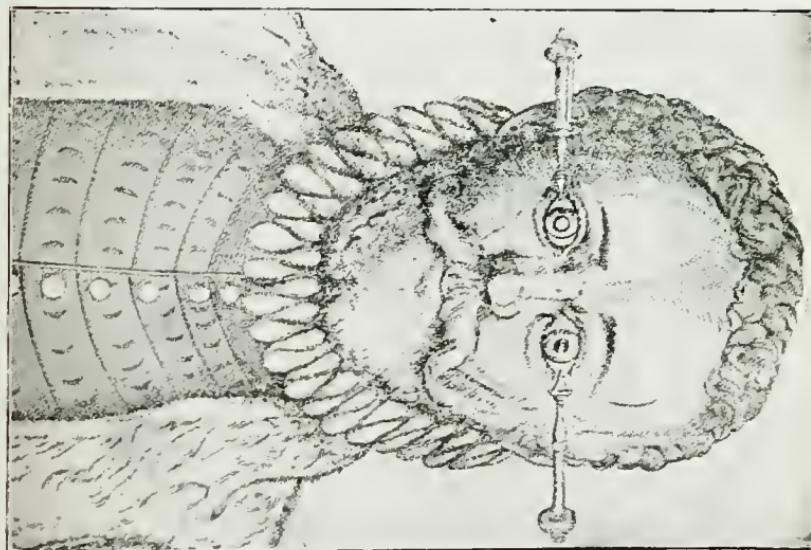
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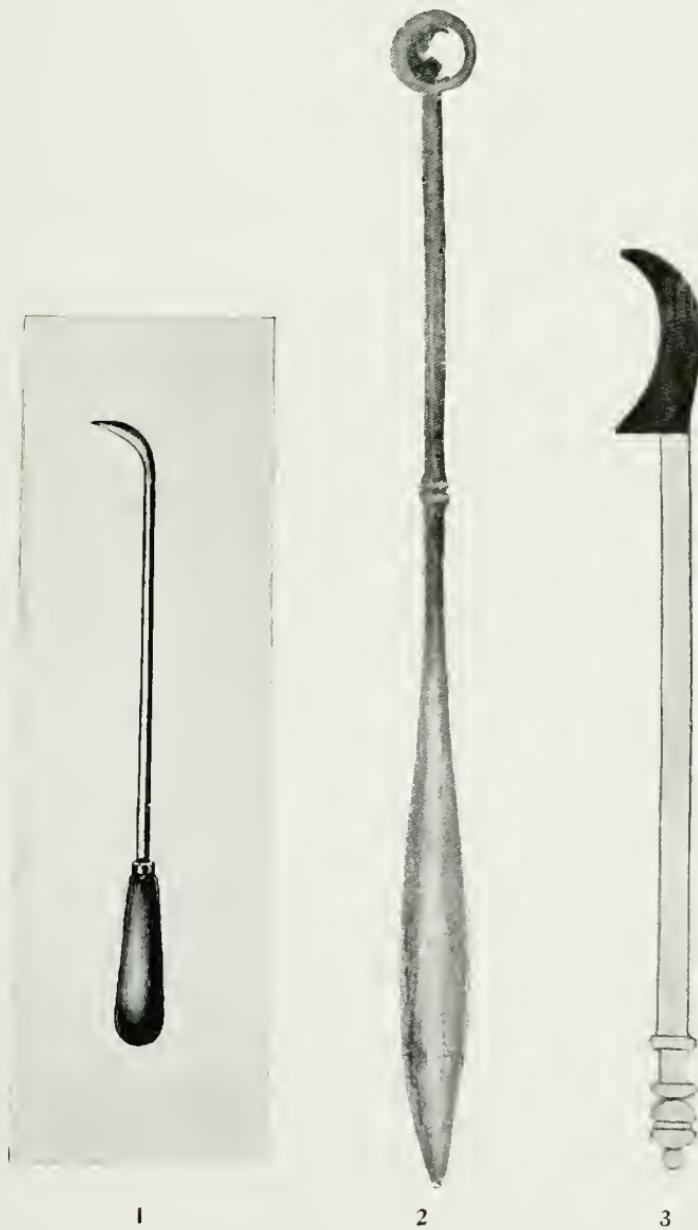
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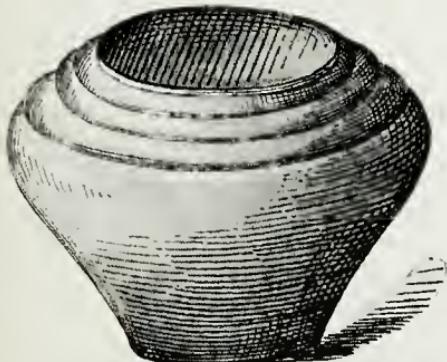
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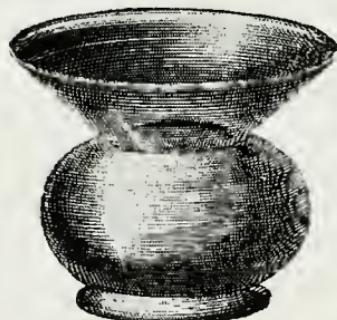
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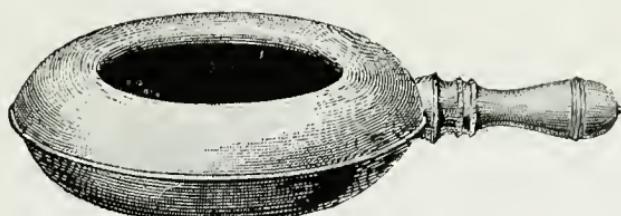
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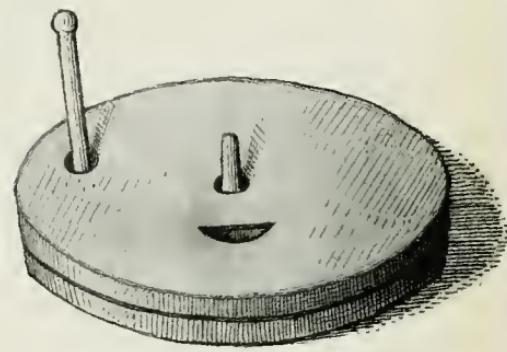
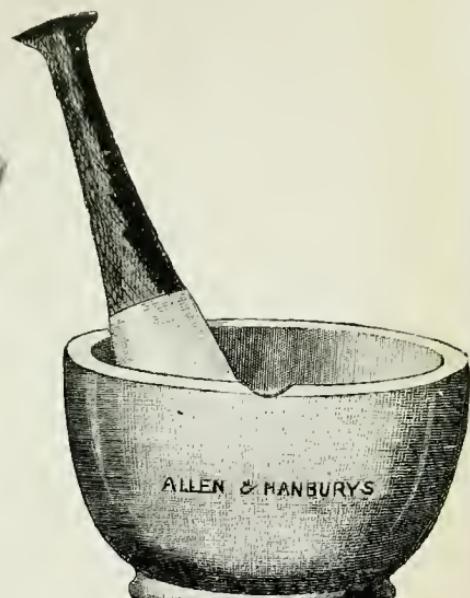


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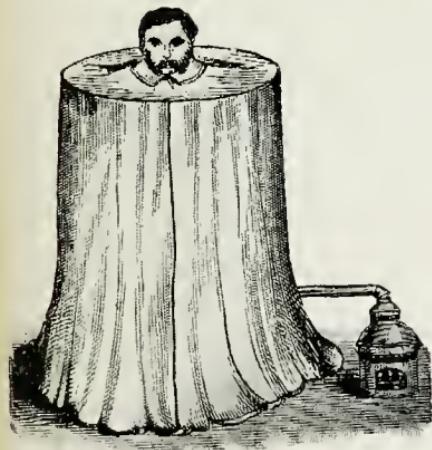
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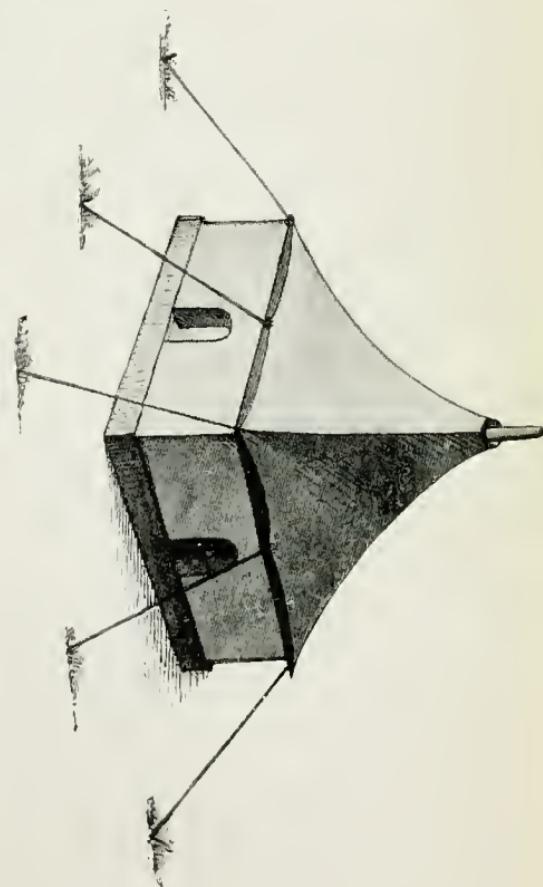
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