

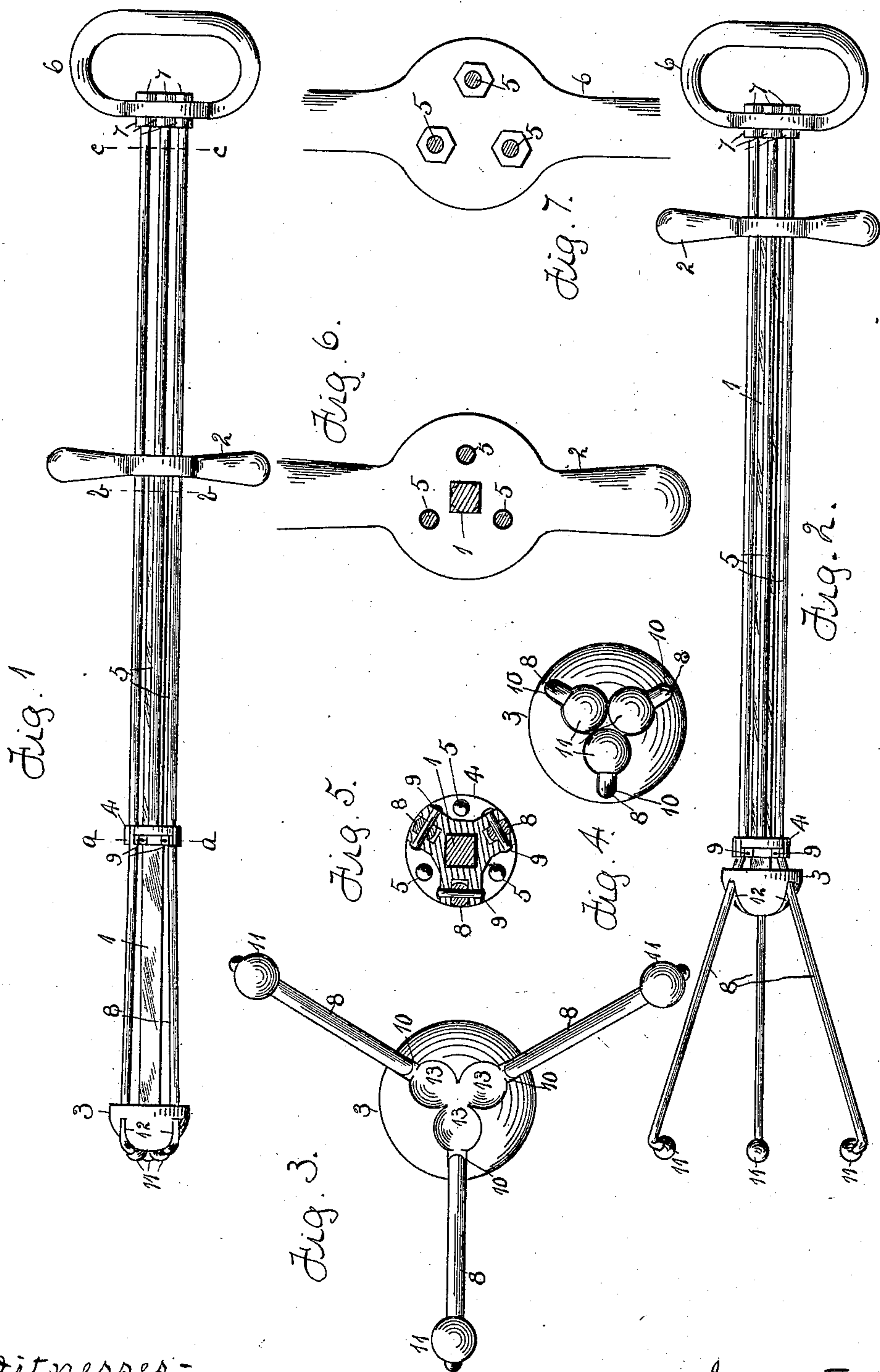
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PATENTED MAY 5, 1908.

F. M. ROWE & T. W. REIMER.

ANIMAL FORCEPS.

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UNITED STATES PATENT OFFICE.

FRANK M. ROWE AND THEODORE W. REIMER, OF ROCKFORD, ILLINOIS.

ANIMAL-FORCEPS.

No. 886,414.

Specification of Letters Patent.

Patented May 5, 1908.

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To all whom it may concern:

Be it known that we, FRANK M. ROWE and THEODORE W. REIMER, citizens of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Animal-Forceps, of which the following is a specification.

The object of this invention is to construct an animal forceps in which a head has a slidable engagement with its support and a head having a fixed connection with the support, fingers having a pivotal connection with the slidable head and a movable engagement with the fixed head, and means for moving the slidable head.

In the accompanying drawings, Figure 1 is a representation of the forceps closed. Fig. 2 is a representation of the forceps open. Fig. 3 is an end view in which the fingers are open. Fig. 4 is an end view in which the fingers are closed. Fig. 5 is a section on dotted lines *a a* Fig. 1. Fig. 6 is a section on dotted line *b b* Fig. 1. Fig. 7 is a section on dotted line *c c* Fig. 1.

A support 1 in this instance is square in cross-section but may be of other angular form. To one end of this support is fixedly connected a cross-bar 2 having projecting handle portions. A head 3 has a fixed connection with the other end of the support 1. On the support 1 is located a head 4 in a manner to slide lengthwise thereof and held from axial or turning movement.

To the slidable head 4 are fixedly connected three rods 5 which are located parallel with the support 1 and extend through holes in the cross-bar 2. The free ends of the rods 5 are fixedly connected with the hand-hold 6 by the ends of the rods being screw-threaded, and nuts 7 turned in connection therewith and located on either side of one of the faces of the hand-hold.

To the slidable head are pivotally connected three fingers 8 by the pins 9. These fingers pass through openings 10 in the fixed head 3 and to their free ends are secured balls 11. The fixed head is formed with three facial grooves 12 and three semi-cylindrical

cavities 13, a groove and a cavity for the free end of each finger.

At Figs. 1 and 4 the free ends of the fingers are located in the grooves 12, and cavities 13 in order that no sharp protruding surfaces will be presented. By holding the cross-bar 2 in one hand the fixed head will be held stationary, then by moving the hand-hold 6 the rods will be moved lengthwise of the support, which will slide the head 4 on its support. This movement of the support will force the fingers through the openings 10 in the stationary head thereby causing them to open or expand into the positions shown at Figs. 2 and 3. This expanding movement is caused by the openings 10, in the fixed head 3 being located a greater distance from the center of the head than the pins 9 are from the center of the support 1. When the fingers are nearly closed, it will take quite a movement of the slidable head to close them, consequently the force exerted by the fingers will be considerable.

In using the term "fixed" for the head 3, and "slidable" for the head 4 it is to be understood that the heads move toward and from one another and these terms are used as though the head 3 was stationary, and the head 4 movable, but the head 3 may be movable and the head 4 stationary or both movable so long as a movement is had one with relation to the other.

We claim as our invention.

1. An animal forceps comprising a support, a head having a fixed connection with the support, a head having a slidable engagement with the support, fingers having a pivotal connection with the slidable head and a movable engagement with the fixed head, and means for moving one of said heads to open and close the fingers.

2. An animal forceps comprising a support, a head having a fixed connection with the support, a head having a slidable engagement with the support, fingers having a pivotal connection with the slidable head and passing through openings in the fixed head, a hand-hold and a connection between the slidable head and hand-hold.

3. An animal forceps comprising a support, a head having a fixed connection with the support, a head having a slidable and non-rotatable engagement with the support, fingers having a pivotal connection with the slidable head and a movable engagement with the fixed head, a cross-bar fixedly connected with the support, rods connected with the slidable head and passing through holes in the cross-bar, and a hand-hold connected 10 with the rods.

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