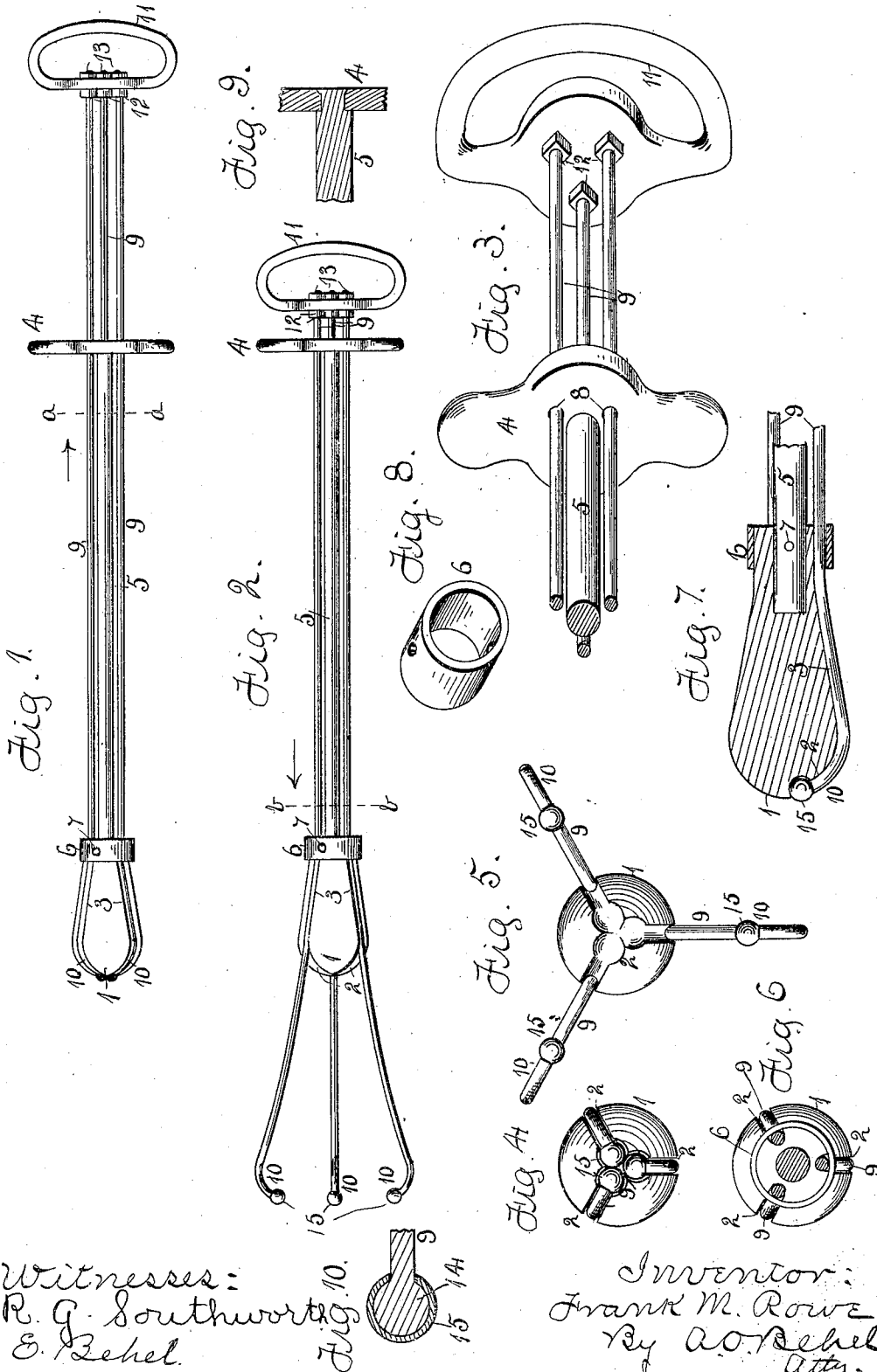


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PATENTED NOV. 20, 1906.

F. M. ROWE.
ANIMAL FORCEPS.

APPLICATION FILED DEC. 11, 1905.



UNITED STATES PATENT OFFICE.

FRANK M. ROWE, OF ROCKFORD, ILLINOIS.

ANIMAL-FORCEPS.

No. 836,217.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK M. ROWE, a citizen 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 which is readily kept clean and in which the fingers are forced apart.

In the accompanying drawings, Figure 1 shows my improved forceps with the fingers withdrawn. Fig. 2 is a similar view in which the fingers are extended. Fig. 3 is an isometrical representation of the handle end of the forceps, partly in section, on dotted line *a*, Fig. 1. Fig. 4 is an end view of the forceps, showing the fingers withdrawn. Fig. 5 is an view of the forceps, showing the fingers extended. Fig. 6 is a section on dotted line *b b*, Fig. 2. Fig. 7 is a section through the head end of the forceps. Fig. 8 is an isometrical representation of the ring 6. Fig. 9 is a section of the rod 5 in its connection with the cross-bar 4. Fig. 10 is a section of the end of one of the fingers with the elastic covering.

The head of the forceps has its outer end 1 rounded and provided with three radially-extending grooves 2. The grooves 3 form a continuation of the grooves 2 and extend in the lengthwise direction of the body portion of the head.

A cross-bar 4 has its ends formed with finger-holds. A rod 5 is connected to cross-bar 4 by its end riveted in connection therewith, as shown at Fig. 9. A ring 6 is located over the smaller end of the head, and a pin 7, passing through the ring and head, holds the ring in place. The rod 5 has one end located in an opening in the head and is held in place by the pin 7 passing through it, as shown at Fig. 7. The cross-bar 4 has a series of holes 8. Three fingers 9 extend in the lengthwise direction of the rod. Their free ends are turned, forming hooks 10. These fingers 9 are located in the grooves of the head through the holes 8 in the cross-bar 4 and are connected to the handle 11 by the nuts 12, located on one side of the handle, and the nuts 13, located on the other side of the handle. The

ring 6 holds the fingers in the grooves 3 of the head. The fingers in their normal position are straight, with the exception of the hooks at their free ends.

As shown at Figs. 1, 2, 6, and 7, the grooves 3 in the head are farther apart at the round end 1 of the head than at the smaller end supporting the ring 6. As the fingers are extended they are forced up the incline grooves 3 of the head until they assume the position shown at Figs. 2 and 5.

When the fingers are in their normal position, their hooked ends 10 will be received within the end grooves 2 of the head, when they will appear, as shown at Figs. 1, 4, 6, and 7, which will present a substantially smooth outer surface to the head.

By constructing the forceps leaving the parts all exposed the parts are more readily kept clean. The hooked ends 14 of the fingers are enlarged in spherical form, and elastic coverings 15 are placed over them. This construction of the ends of the fingers will prevent injury to the animal.

I claim as my invention—

1. An animal-forceps comprising a tapering head larger at its free end and formed with peripheral grooves, a series of fingers located in the grooves and a handle with which the fingers are connected.

2. An animal-forceps comprising a tapering head larger at its free end and formed with peripheral grooves, a cross-bar connected with the head, a series of fingers located in the grooves and passing through the cross-bar, and a handle with which the fingers are connected.

3. An animal-forceps comprising a tapering head larger at its free end and formed with end and side grooves, the end grooves being curved, and a series of fingers adapted to be located in the grooves.

4. An animal-forceps comprising a tapering head larger at its free end and formed with peripheral grooves, a ring inclosing the grooves at one end of the head, and a series of fingers located in the grooves.

5. An animal-forceps comprising a tapering head larger at its free end and formed with peripheral grooves, a cross-bar, a rod

connecting the head and cross-bar, a series of fingers located parallel with the rod, and located in the grooves and passing through the cross-bar, and a handle with which the
5 fingers are connected.

6. An animal-forceps comprising a head, a series of slidable fingers having their ends en-

larged in spherical shape, and elastic coverings for the ends.

FRANK M. ROWE.

Witnesses:

A. O. BEHEL,
E. BEHEL.