

(No Model.)

W. E. SHARPLES.
TRAVELER CLEANER FOR SPINNING FRAMES.

No. 414,259.

Patented Nov. 5, 1889.

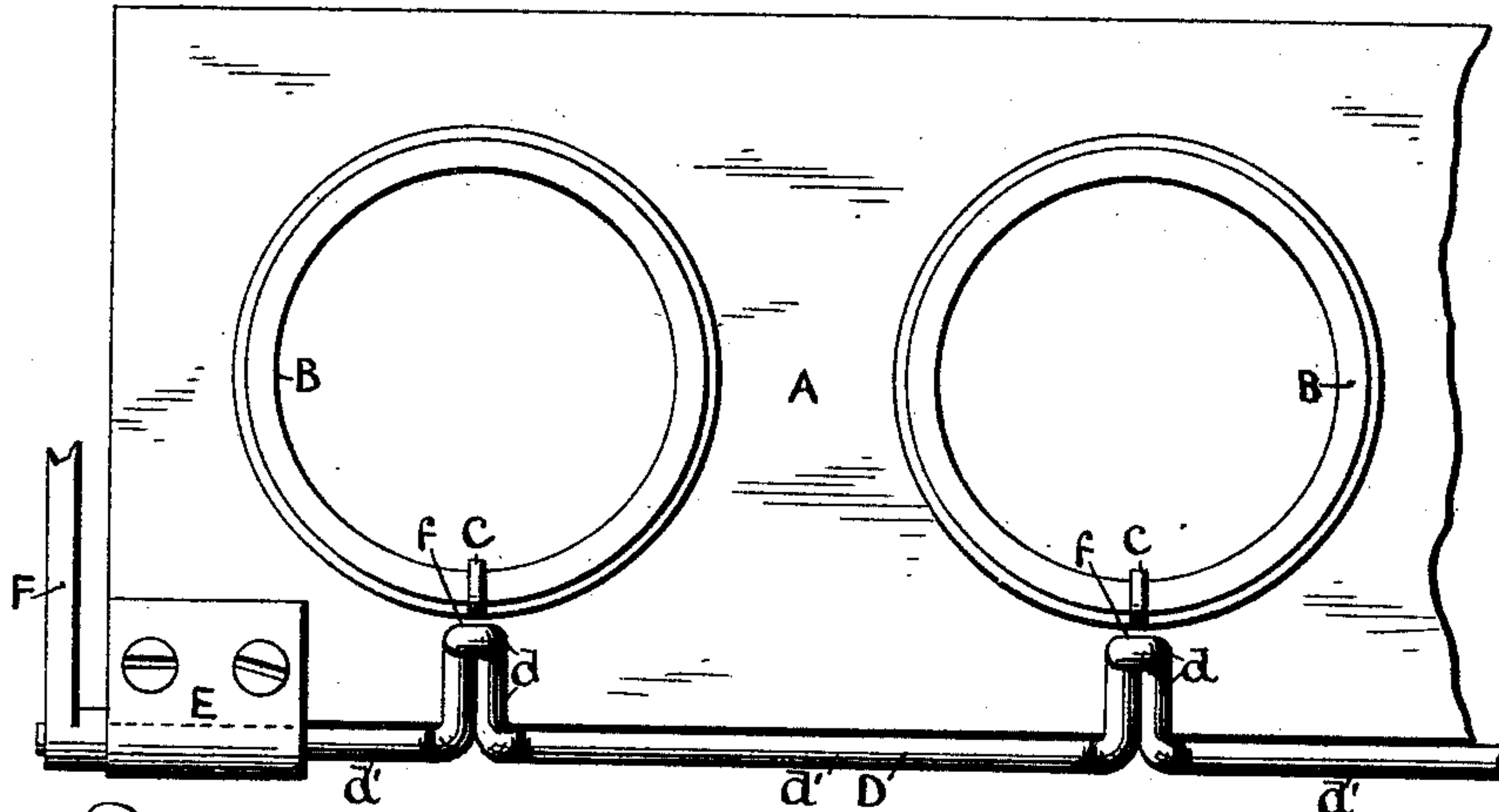


FIG. 1.

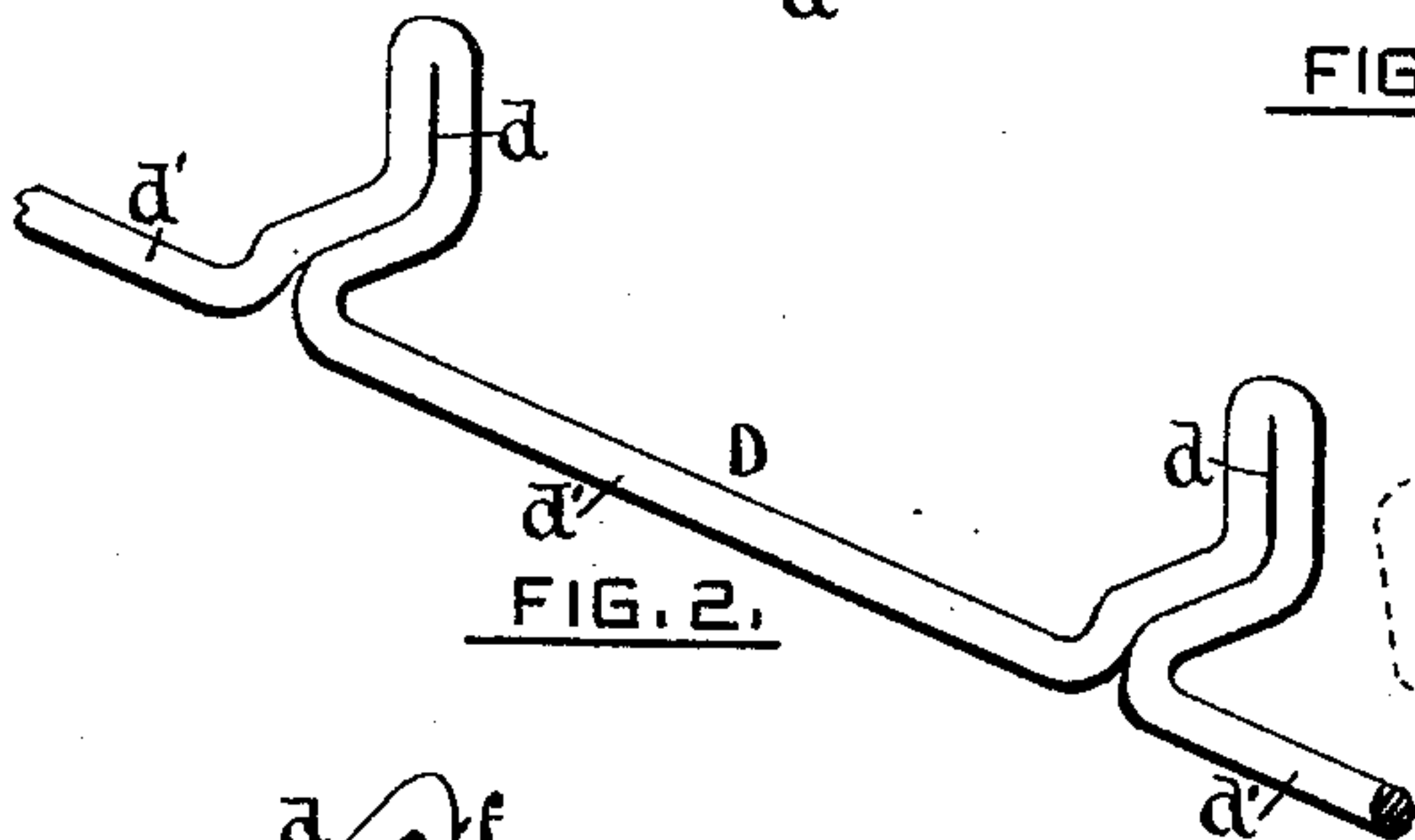


FIG. 2.

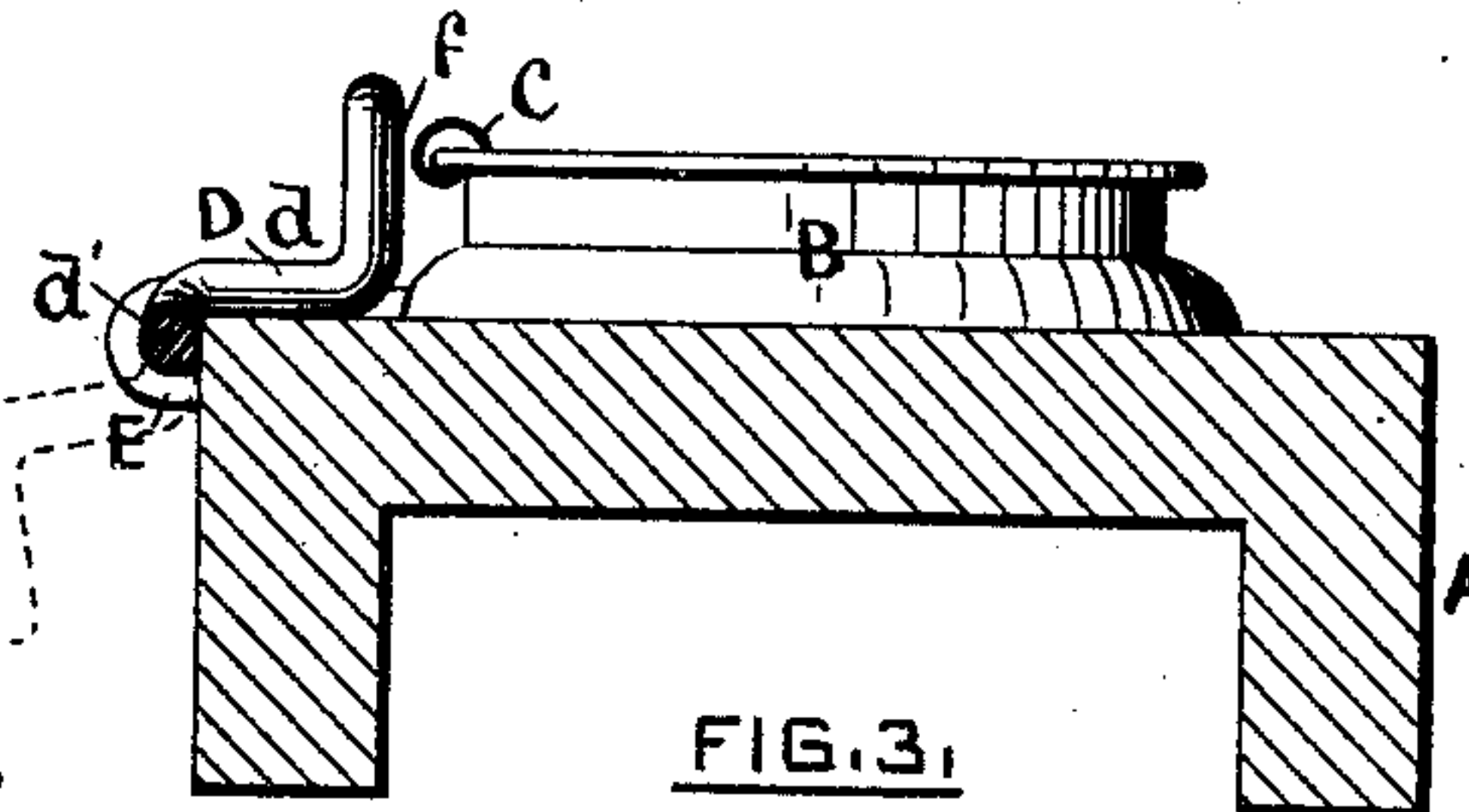


FIG. 3.

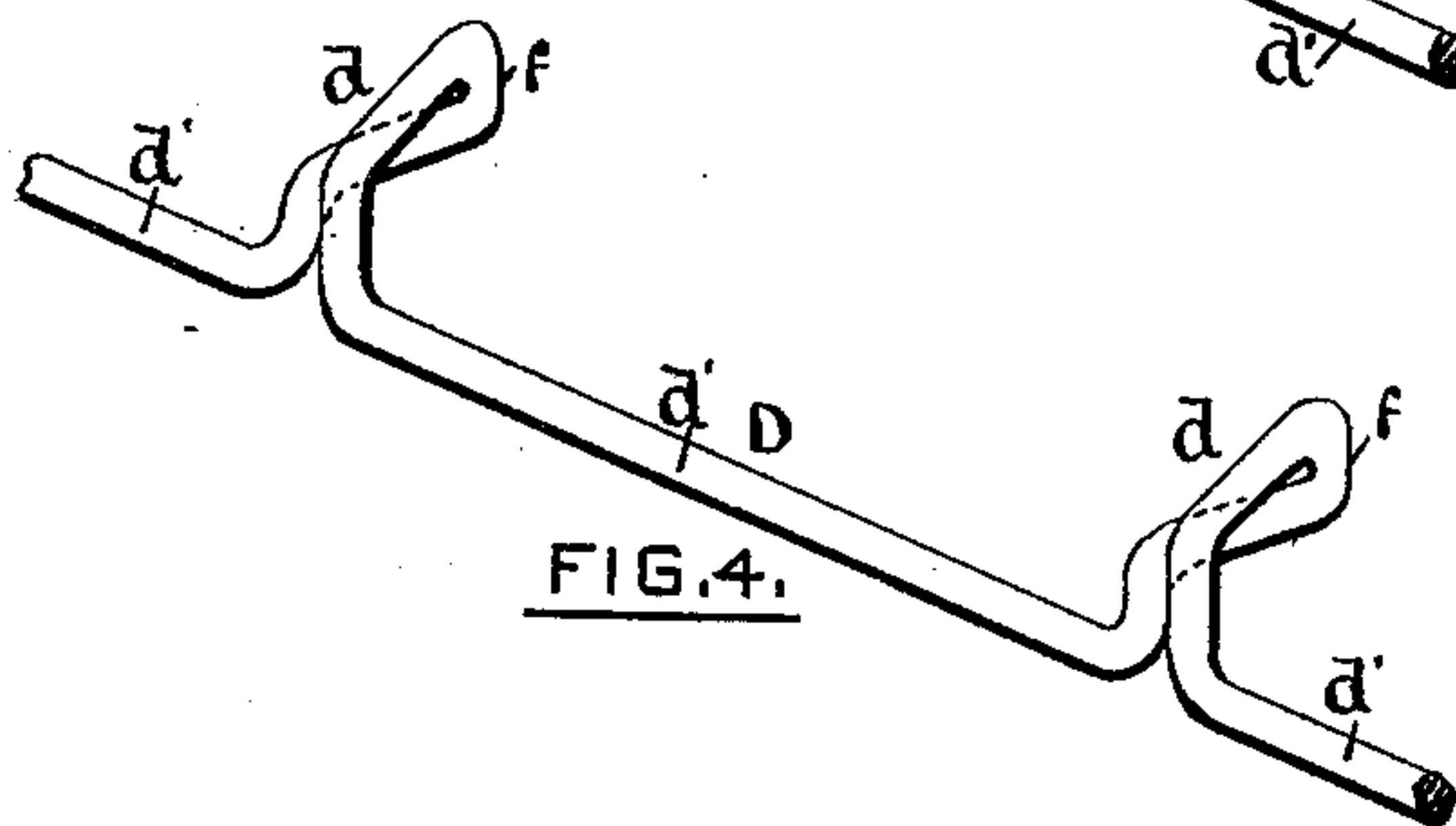


FIG. 4.

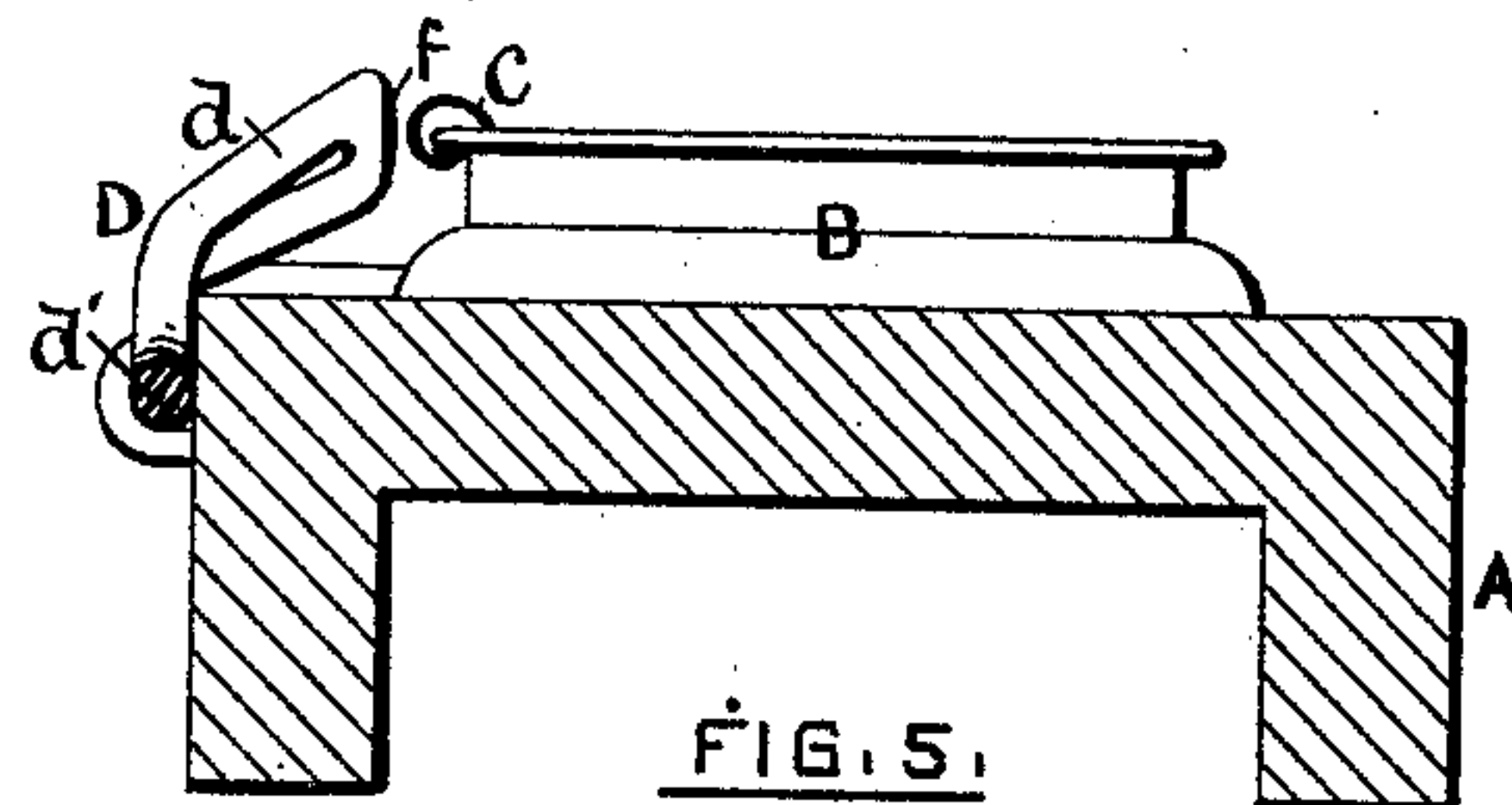


FIG. 5.

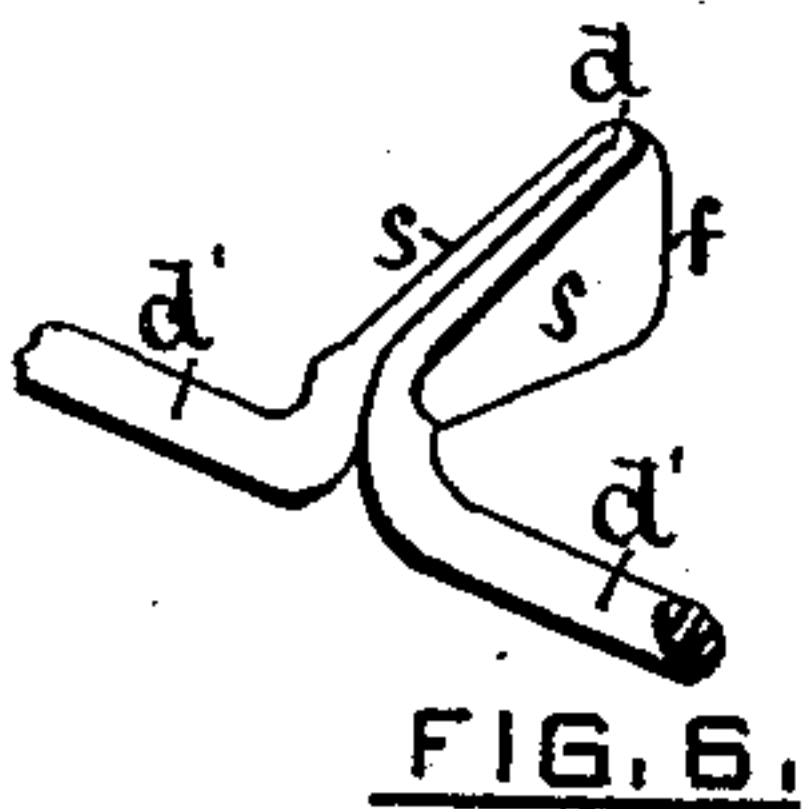


FIG. 6.

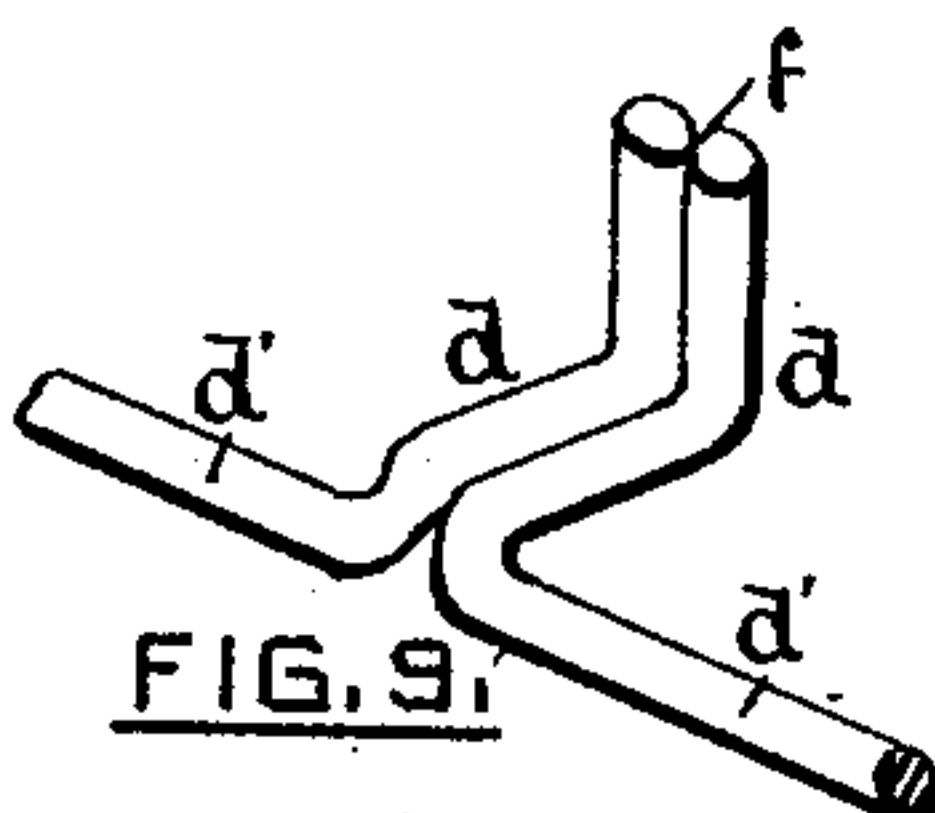


FIG. 9.

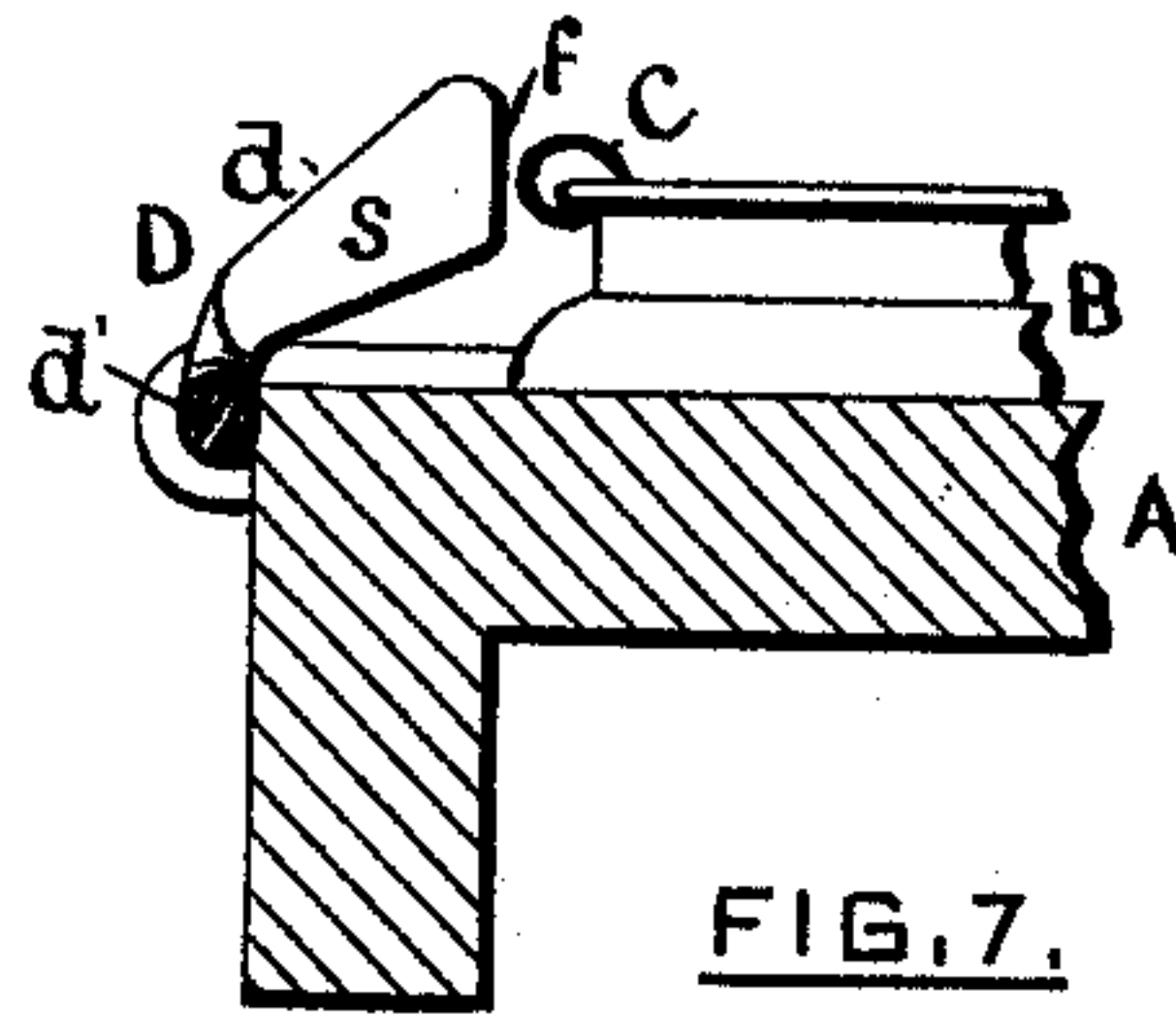


FIG. 7.

WITNESSES.

H. J. Stapleton.
G. M. Leady

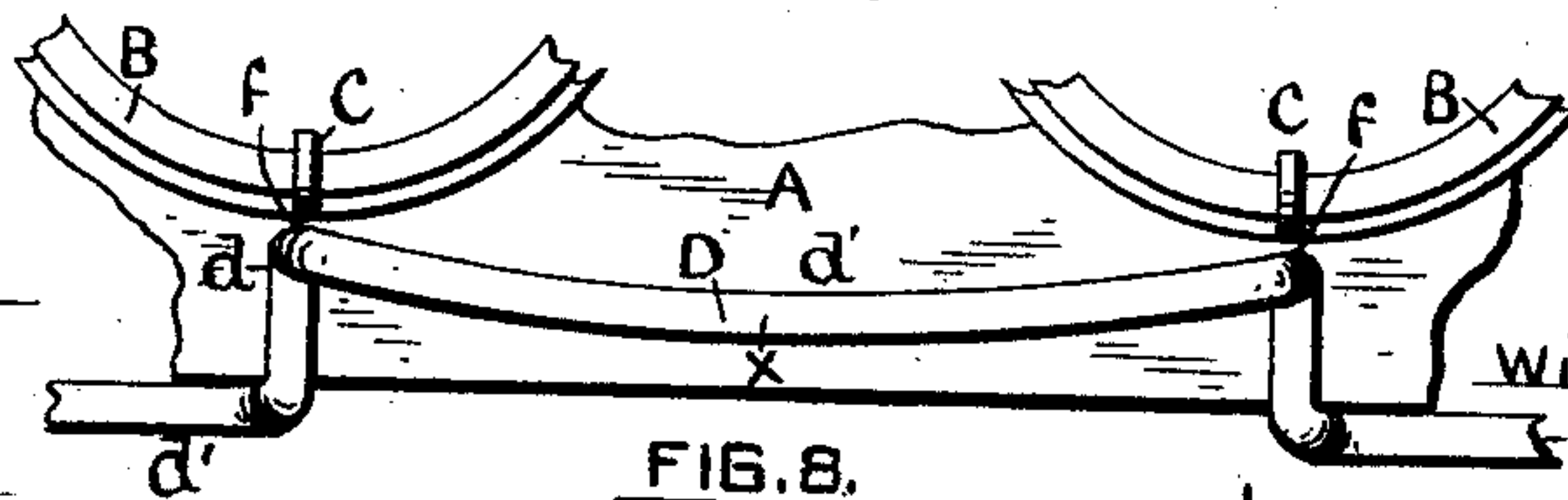


FIG. 8.

INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM E. SHARPLES, OF FALL RIVER, MASSACHUSETTS.

TRAVELER-CLEANER FOR SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 414,259, dated November 5, 1889.

Application filed August 27, 1889. Serial No. 322,110. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SHARPLES, of Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Traveler-Cleaners for Spinning-Frames; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a complete description thereof.

This invention relates to a device for cleaning or removing lint, &c., from the travelers of a ring-spinning frame, twisting-frame, or similar machine while the travelers are in motion.

The improvement consists in making the device of wire, as hereinafter described and claimed, thereby securing lightness in weight and decreased expense in manufacture.

Referring to the drawings, Figure 1 represents a top view of a portion of a ring-rail with the traveler-cleaning device mounted thereon. Fig. 2 shows the cleaning device detached and in perspective. Fig. 3 shows a transverse section of the rail with the cleaning device thereon. Fig. 4 represents in perspective another form of the device embodying the invention. Fig. 5 shows a transverse section of a rail with such device thereon. Fig. 6 represents in perspective another form of a device embodying the invention. Fig. 7 shows a partial section of a rail with such device thereon. Fig. 8 shows a top view of a portion of a rail with another form of device embodying the invention thereon. Fig. 9 represents in perspective another form of the device.

A represents the ring-rail, B the rings, and C the travelers, of an ordinary ring-spinning frame.

The device D, for cleaning the travelers, is made of wire, (preferably steel,) and consists of a series of fingers *d*, one for each ring, which fingers are joined to one another in series by connecting portions *d'* of the device. The device is mounted on the ring-rail by means of bearings or brackets, as E, arranged at suitable distances apart, and preferably so that the fingers *d* can be swung backward, as shown by dotted lines in Fig. 3, when the top of the rail is to be cleaned of lint, &c., which

collects thereon, and can be returned to normal position to perform their office. For the purpose of conveniently rocking or turning the device it may be supplied with a handle or lever, as F, Fig. 1.

The device shown in Figs. 1, 2, and 3 is made from a continuous piece of wire by bending the same to produce a series (more or less in number) of fingers *d* and connecting portions *d'*, and the device is applied to the rail so the face *f* of each finger will be closely adjacent to the path of movement of the traveler, in order that said finger shall remove the lint, &c., that collects on the traveler.

The form of device shown in Figs. 4 and 5, which also embodies the invention, may be made from a continuous piece of wire bent to form the fingers *d* and connecting portions *d'*, the face *f* of the fingers preferably being flattened to increase the length of the face, and also its breadth, if desired, thereby making it still more effective in cleaning the traveler.

The form of the device shown in Figs. 6 and 7 may also be made of a continuous piece of wire by bending the wire to form the fingers *d* and connecting portions *d'*, then flattening the sides *s* of the fingers, and preferably flattening the face *f* to increase the length of the face, and its breadth also, if desired.

That form of the device shown in Fig. 8 may also be made from a continuous piece of wire (an end view of this device will be similar to that shown in Fig. 3) by bending the wire to form the fingers *d* and connecting portions *d'*, every other one of which latter, as *x*, may extend above the ring-rail from finger to finger.

For long frames the device may be made in sections, each section having a series of fingers *d* and connecting portions *d'*, and such sections be connected with each other in any preferred manner, as will be readily understood.

That form of the device shown in Fig. 9 can be made of short pieces of wire by bending the ends of the pieces so as to form the fingers *d* and leaving intermediate connecting portions *d'* of the proper length. These pieces can be joined end to end, as shown in said figure, in any preferred manner, as by brazing. An end view of this form of the

device will be similar to that shown in Fig. 3.

From the foregoing it will be seen that each of the devices D is made of wire bent so as to produce fingers *d* and connecting portions *d'*.

5 Being made of wire, the device is light and only a minimum of weight is added to the ring-rail, which is a very desirable feature. The faces *f* of all the fingers shown may be flattened, if desired, to secure greater breadth
10 of surface.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with the ring-rail and its rings, of a traveler-cleaning device composed of wire bent to form clearer-fingers *d*
15 and connecting portions *d'*, substantially as set forth.

2. The combination, with the ring-rail and its rings, of a traveler-cleaning device having

a series of clearer-fingers *d* and connecting portions *d'*, formed from a continuous piece of wire, substantially as set forth. 20

3. The combination, with the ring-rail and its rings, of a traveler-cleaning device composed of wire bent to form clearer-fingers *d* 25 and connecting portions *d'*, the faces *f* of the fingers being flattened, substantially as set forth.

4. The combination, with the ring-rail and its rings, of a traveler-cleaning device composed of wire bent to form clearer-fingers *d* 30 and connecting portions *d'*, the faces *f* and sides *s* of the fingers being flattened, substantially as set forth.

WM. E. SHARPLES.

Witnesses:

EDSON SALISBURY JONES,
GEO. M. CADY.