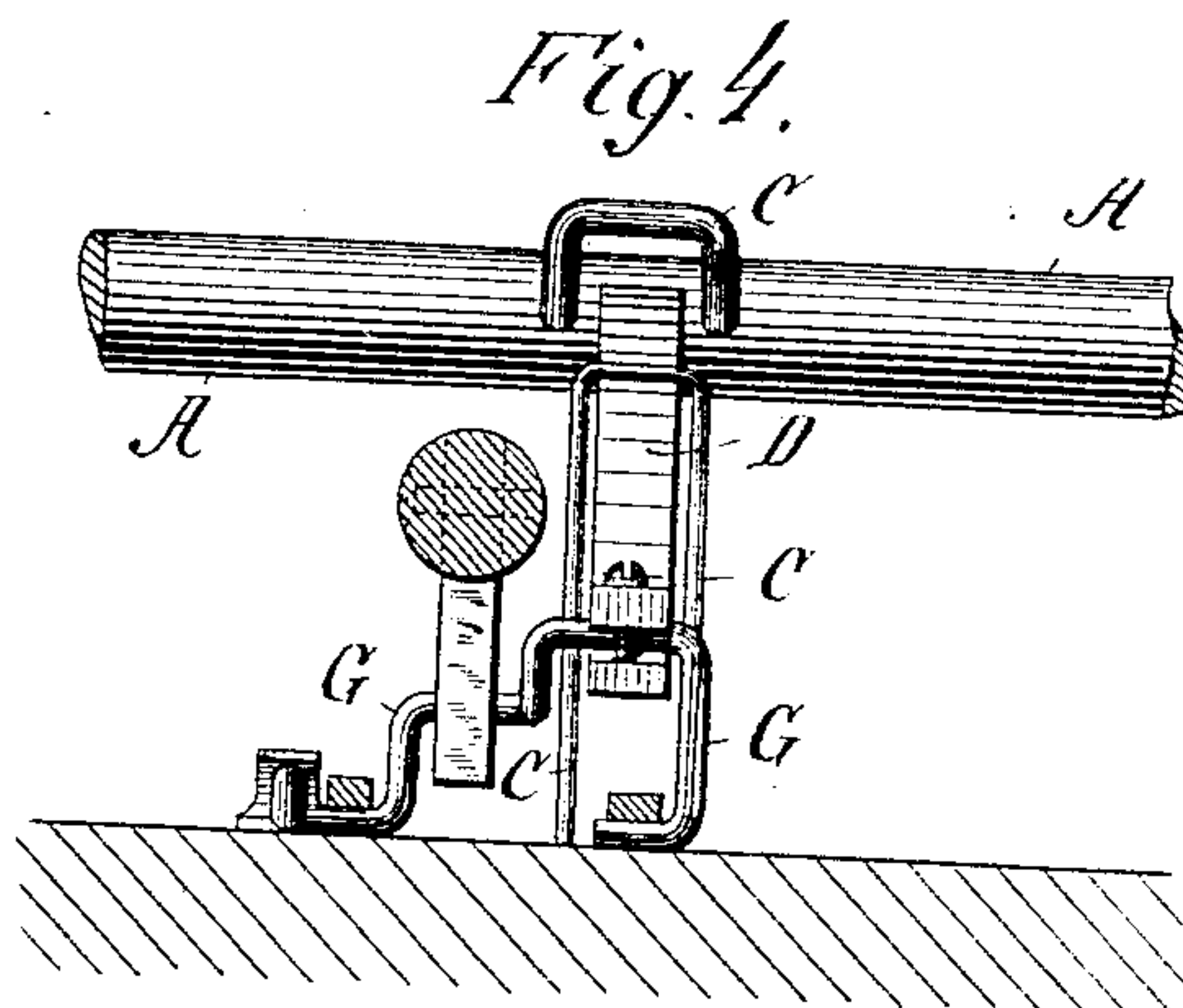
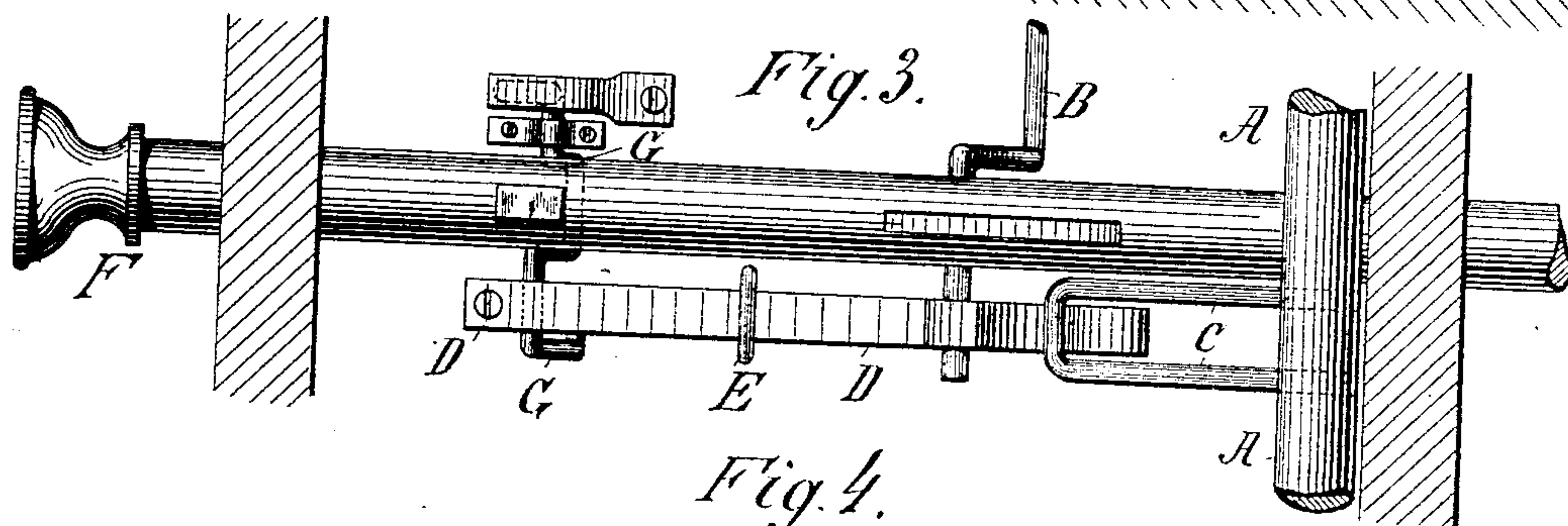
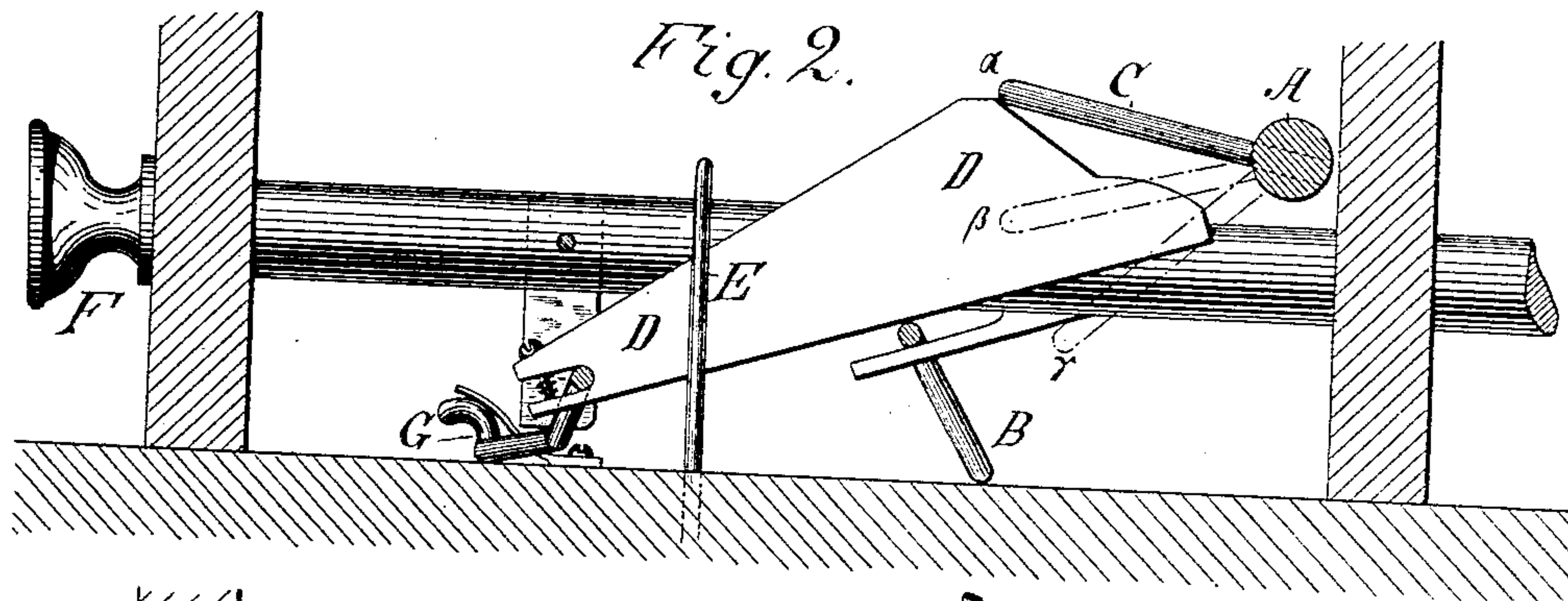
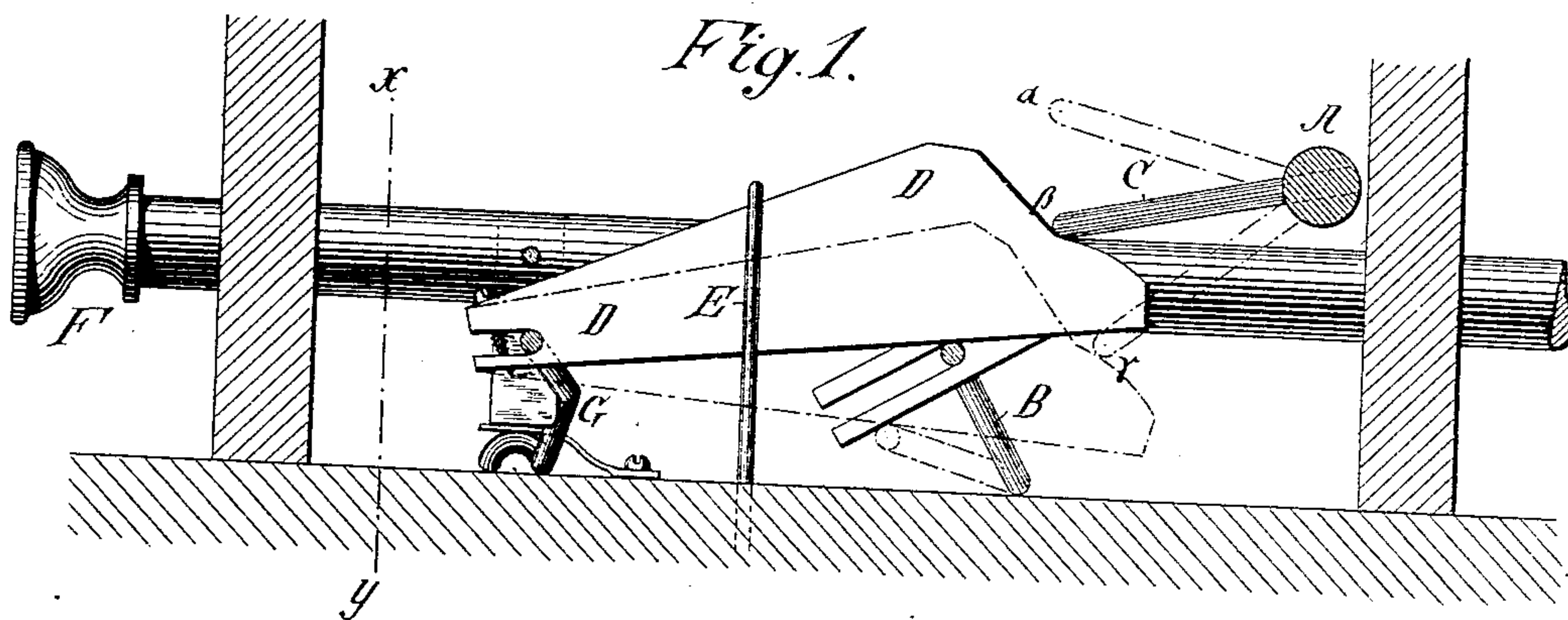


(No Model.)

F. WEINBRENNER.
ORGAN STOP ACTION.

No. 393,871.

Patented Dec. 4, 1888.



Witnesses:

Normanville,
E. G. Wanner.

Inventor:

Fredrik Klintvinner.

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A. Knut. R. Fisher
attorneys.

UNITED STATES PATENT OFFICE.

FERDINAND WEINBRENNER, OF NEUNKIRCHEN, PRUSSIA, GERMANY.

ORGAN STOP-ACTION.

SPECIFICATION forming part of Letters Patent No. 393,871, dated December 4, 1888.

Application filed May 3, 1888. Serial No. 272,732. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND WEINBRENNER, a subject of the King of Prussia, residing at Neunkirchen, Prussia, German Empire, have invented new and useful Improvements in Organ-Stops, of which the following is a specification.

My invention relates to improvements in organ-stops, by which any required stop or group can be brought into action by means of a lever operated either by the knee or foot or other means.

On the shaft A of the grand organ, which is operated in the usual manner by the knee or feet or other means, are arms C for each stop-shaft B. This arm C does not press directly on the cranked part of the shaft B, but through the plate D, which lies between them. This plate D is of such a form and arranged in such a manner that when it is displaced by pulling the stop-handle F the arm C catches on it and shoves it into its original position later or earlier than if it had not been displaced according to its position. The object of this is, that those stops only whose plates C are displaced will be opened at different times by the grand-organ stop. These plates D can be displaced, so as to open the stops sooner or later in relation to one another.

Figure 1 shows the position of the plate D when the stop is not actuated by the arm C of the shaft A till the arm C arrives at β . Then it is depressed from β to γ , as shown by the dotted lines.

Fig. 2 shows the position of the plate D when it is in the position so that it can be actuated by the arm C of the shaft A and depressed from α to γ at the first movement of the shaft A. α , β , and γ show the three positions of the arms C in both figures. When the stop is not "on"—that is, when the plate D is not displaced—the arms C can move from α to β without affecting the position of the plate D, and therefore will not affect the stop itself, as shown in Fig. 1; but when the arm C moves from β to γ it will then open the stop-axle B by depressing the plate B; but, as

shown in Fig. 2—that is, with the stop on or ready to be put in action—the arm will open the stop suddenly, when the grand-organ shaft begins its first motion.

Fig. 3 shows a top view of the improved stop in the position as seen in Fig. 1. Fig. 4 is a section through the line $x y$, Fig. 1.

E is a guide for the plate D, which prevents it from rising too high or from falling to the side.

Stops which in general are not opened by the grand-organ stop—as, for instance, tremolo, forte, &c.—can be so arranged that the arm C does not catch on the plate D when the plate D is in its original position, while it may catch on it after being put in action.

The plate D can be adjusted by means of a key or other means above or below the stop-handle F or by the handle F itself. In both cases can the plate D be connected immediately to the key. The plate D can also be connected to a separated shaft, G, as shown in the drawings.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an organ stop-action, the arms C, one for each register, fastened to the grand-organ shaft A, with the plate D, for the purpose as described.

2. In an organ stop-action, the arms C, one for each register, fastened to the grand-organ shaft A, with the stop-axle B and the movable plate D, arranged between C and B, for the purpose as described.

3. In an organ stop-action, the arms C, one for each register, fastened to the grand-organ shaft A, with the stop-axle B and the movable plate D, arranged between C and B, and the movable handle F, fastened to the plate D, for the purpose as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

FERDINAND WEINBRENNER.

Witnesses:

GUSTAVE ALBERT OELRICHS,
WM. D. WARNER.