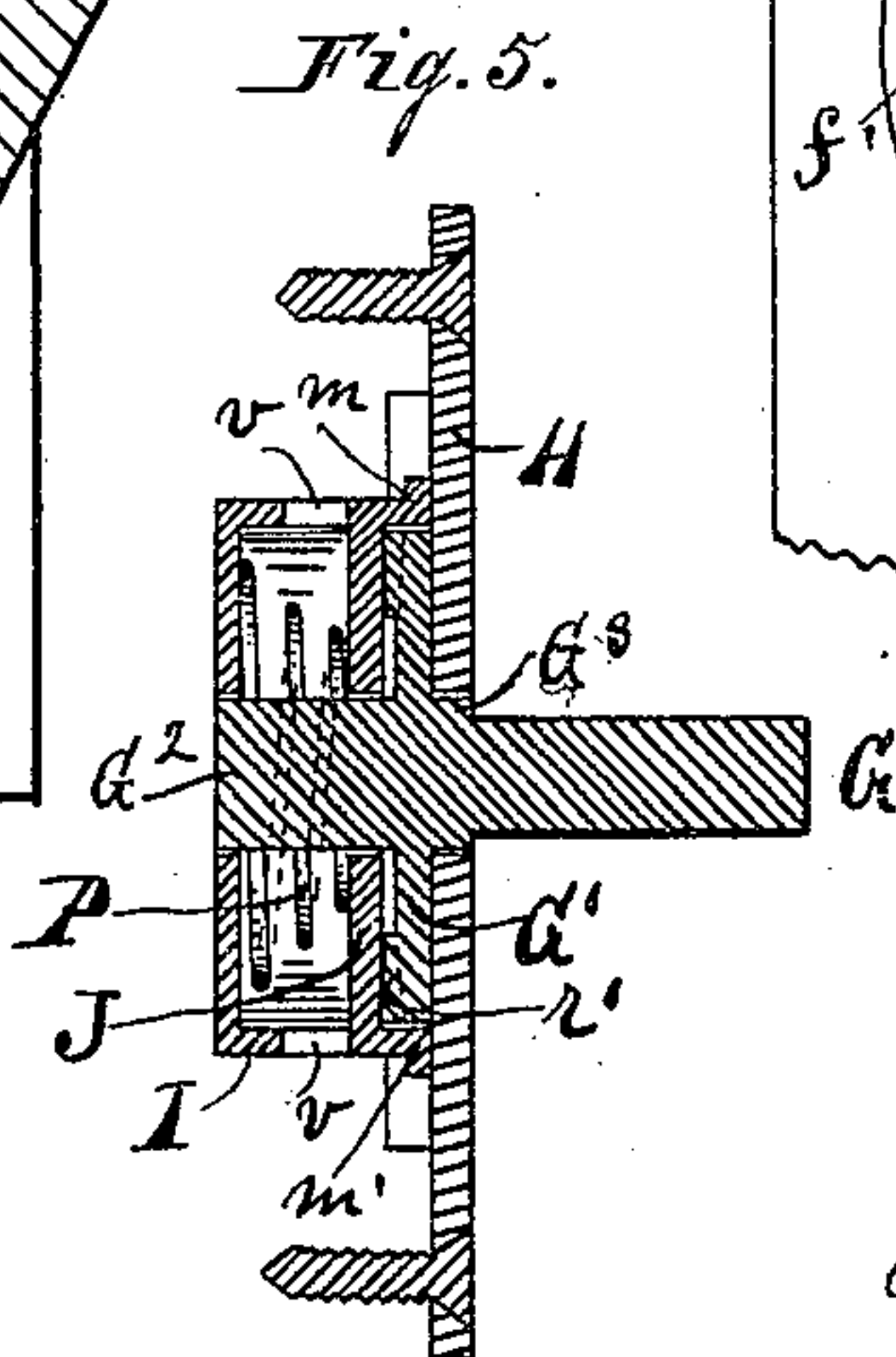
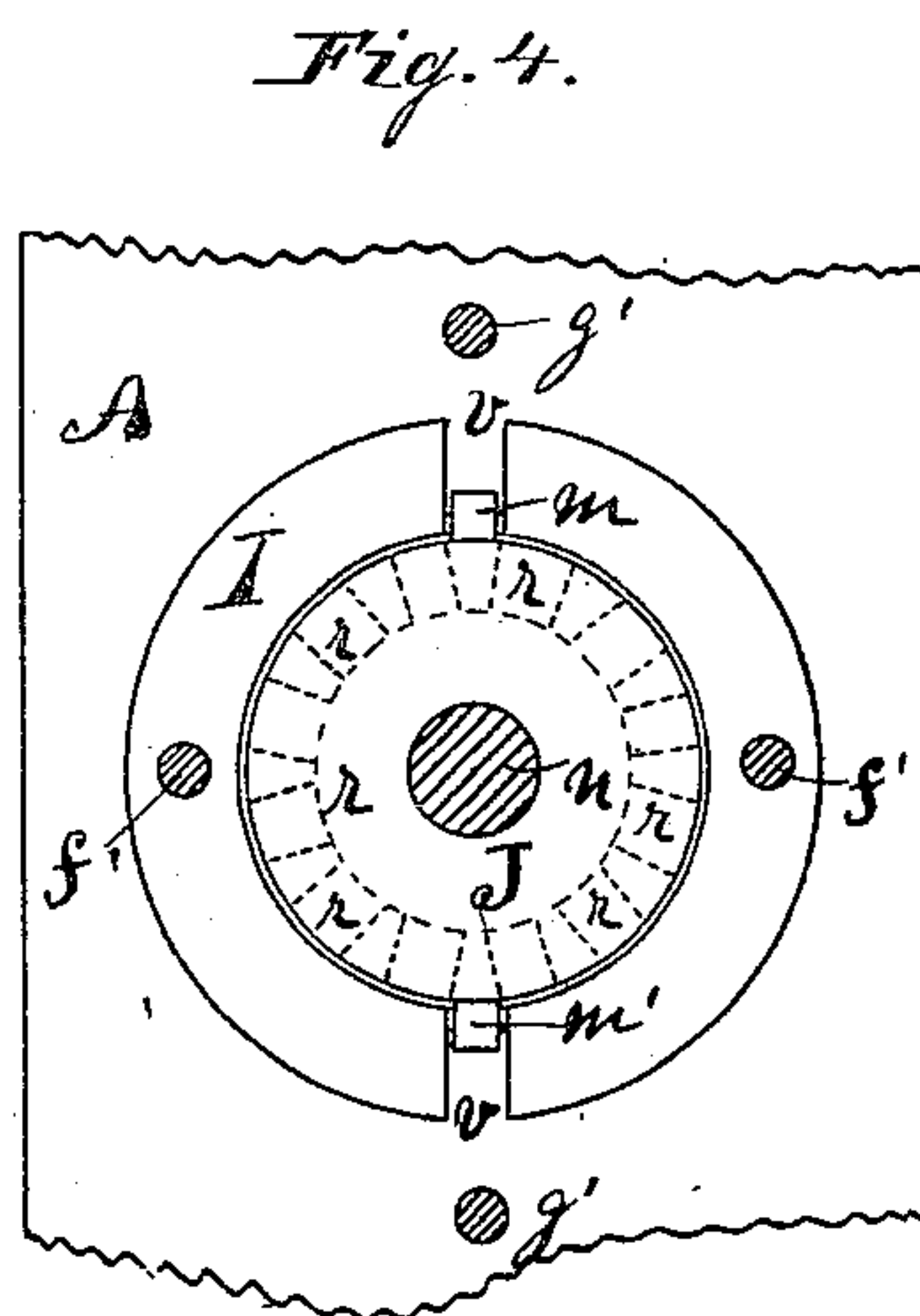
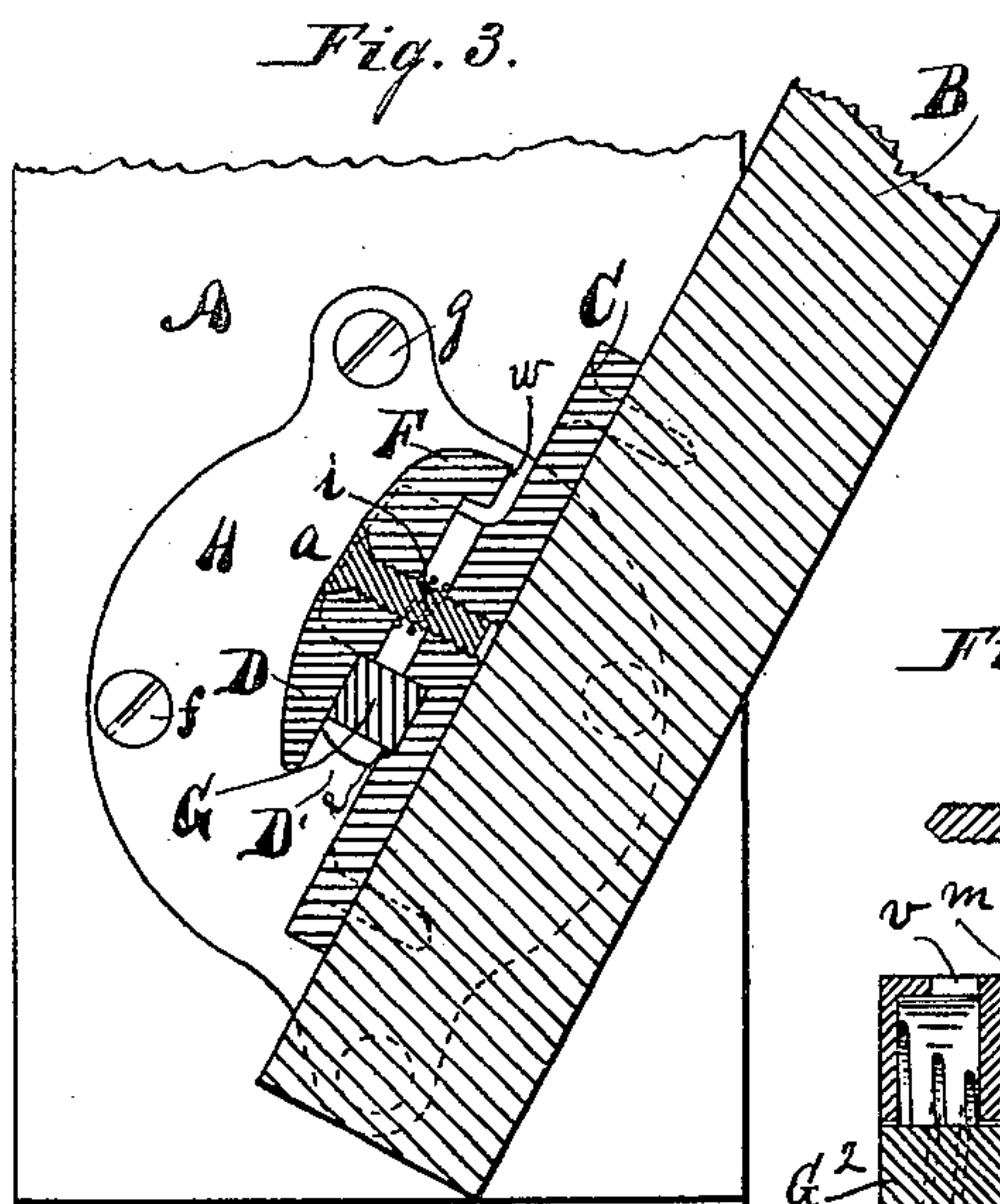
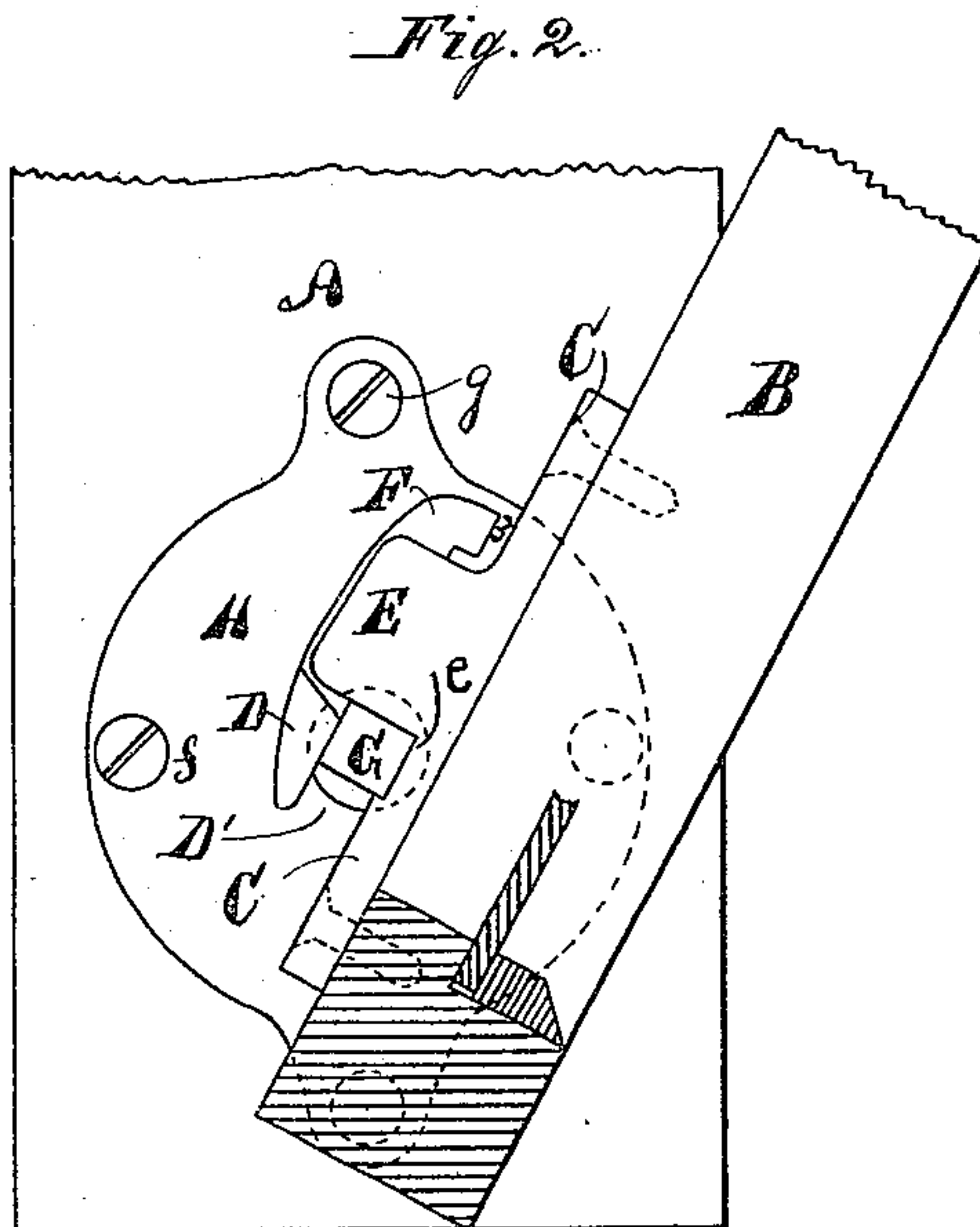
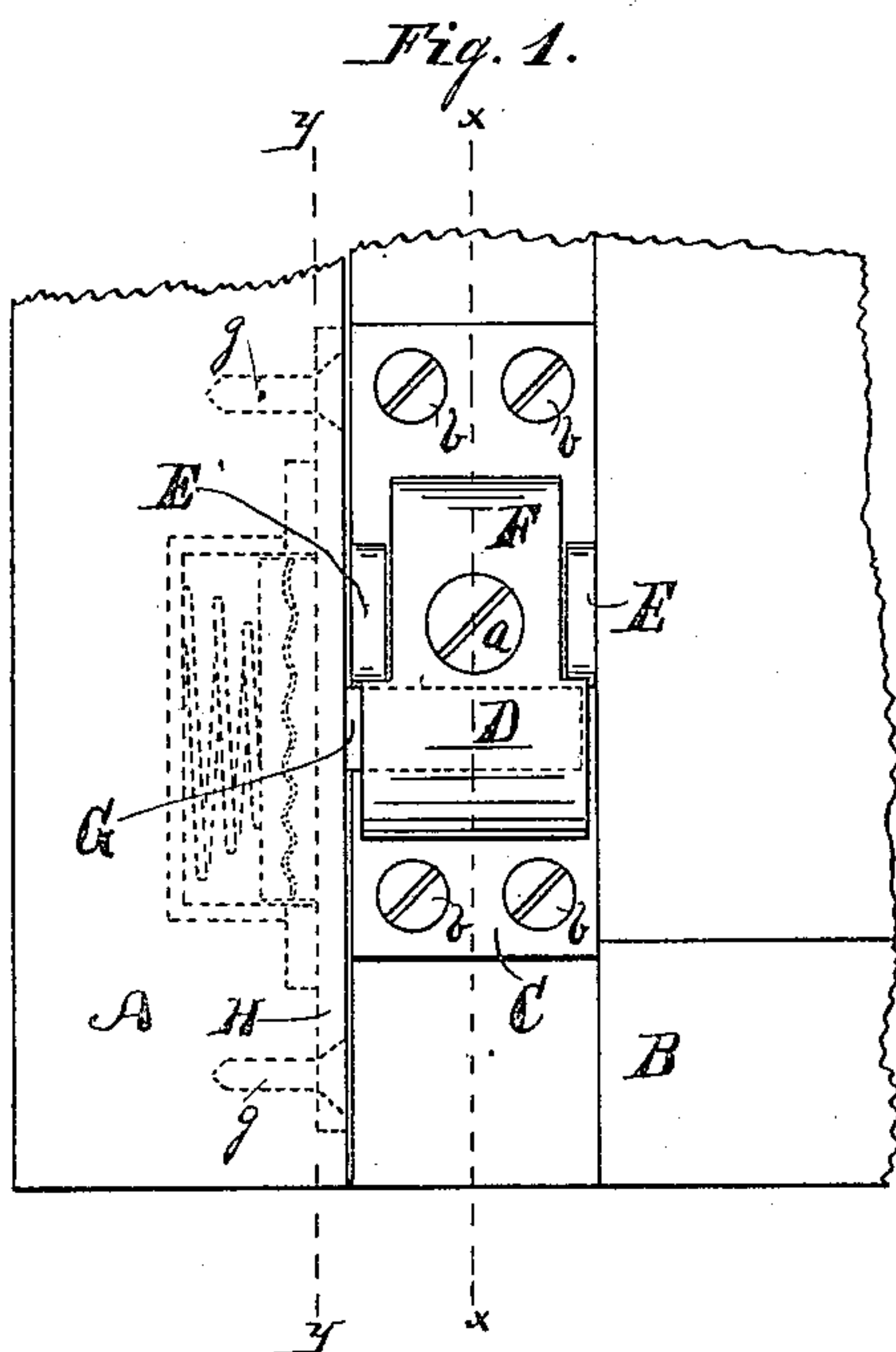


(Model.)

T. J. MORGAN.
AUTOMATIC SASH PIVOT.

No. 246,410.

Patented Aug. 30, 1881.



WITNESSES:
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UNITED STATES PATENT OFFICE.

THOMAS J. MORGAN, OF CHICAGO, ILLINOIS.

AUTOMATIC SASH-PIVOT.

SPECIFICATION forming part of Letters Patent No. 246,410, dated August 30, 1881.

Application filed May 10, 1881. (Model.)

To all whom it may concern:

Be it known that I, THOMAS J. MORGAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improved Automatic Sash Pivot and Clamp for Car-Windows, of which the following is a specification.

My invention relates to improvements in pivot-supports and clamps for window-sash, and the object of my invention is to construct a sash pivot and clamp, especially designed for railroad-cars, which effectually excludes all dust, rain, or snow from its working parts, and which holds the sash firm and secure in any position required and permits the removal of the sash from the frame at pleasure for cleaning or other purposes. This object I accomplish by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents an outside view of a portion of a window frame and casing, showing the manner in which the sash pivot and clamp are attached. Fig. 2 is a vertical cross-section of the window-sash, showing the pivot part let into the casing, also a side view of the clamp attached to the sash and the sash slightly inclined inward. Fig. 3 represents a view of parts, same as in Fig. 2, with the clamp portion in section. Fig. 4 represents a plan view of the pivot-case which is let into the window-casing, showing one of the corrugated plates in position. Fig. 5 represents a vertical section of the pivot-case and clamp-pin.

Similar letters in the various views refer to like parts.

A represents the window-casing; B, the window-frame. The face of the casing A is recessed to receive the cylindrical case I, and the case I is made fast to the face-plate H by the screws *f*. The cylinder I is slotted at *v v* on opposite sides, and is provided with a coil-spring, P, as shown in Figs. 1 and 5. On the spring P is placed a disk-plate, J, having lugs *m m'*, which operate in the slots *v v* and prevent the disk from turning around in the cylinder I.

The outer face of the disk J is provided with radial corrugations *r*, and its center is provided with a hole, *n*, for the pivot end *G*² of the stud *G* to operate in. The pivot-stud *G* is com-

posed of the round part *G*², which operates in the hole *n* of the disk J, the disk-plate *G'*, having radial corrugations to correspond with the corrugations *r* of the plate J, a round part, *G*³, to operate in the central hole of the face-plate H, and the square part *G* to be attached to the clamping device F C on the sash-frame B.

The clamping device on the sash-frame B consists of the bed-plate C, the sides of which are provided with lugs E E', and a flat notch, *e*, formed in the bed-plate C, at the lower sides of the lugs E E', also the clamp-plate F, which is fitted between the lugs E E', and provided at its rear end with a rib or dog, *w*, and at its front end with the jaw D, adapted to receive and clamp the square part *G* of the disk-plate *G'* between said jaw D and the notch *e* of the bed-plate. The clamp F is made fast to the bed-plate C by the screw *a*, and the spring *i* is to force the clamp F away from the bed C when the screw *a* is loosened, thus permitting the clamp to be removed or replaced on the square part *G* by withdrawing or inserting it in the open space D'.

The operation of my improved automatic sash pivot and clamp is as follows, to wit: The mechanism shown in Fig. 5 is inserted in the face of the casing A, one on each side of the window near the bottom, and the clamping device C F attached to the sash-frame, one on each side of the sash near the bottom. In order to insert the sash in the frame, loosen the screws *a*. The spring *i* will force the clamp F away from the part C far enough to insert the square bars *G* of the pivot in the spaces D' of the clamp. The sash is thus inserted in its casing, and the screws *a* are then made fast, thus holding firmly the pivot-bar *G* in the notch *e* between the jaws F D and bed-plate C as the window is moved inward at the top, as shown in Figs. 2 and 3. The pivot-bar *G* is turned, thus turning the plate *G'* as the corrugations of the plate *G'* pass over the raised parts of the corrugations *r* of the plate J. The plate J is depressed on the spring P, and the spring P forces the plate J back again as the recesses of the corrugations in the plate *G'* come opposite the raised parts *r* of the movable plate J.

Thus the sash B is held at any desired angle, as shown in Figs. 2 and 3.

In order to remove the sash B the screw *a* is loosened and the clamp F C on the sash removed from the pivot G.

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

1. The pivot consisting of the square stem G, the corrugated disk G', and round parts G² G³, combined with the corresponding corrugated disk J, said disk having lugs *m m'*, the spring P, the cylindrical case I, with slots *v v*, and the face-plate H, substantially as shown and described.

2. The clamping device consisting of the bed-plate C, with ears E E', and notch *e*, combined

with the clamp-plate F D, the screw *a*, and spring *i*, substantially as shown and described.

3. The combination of the clamping device C D F, as described, with the pivot-bar G, the corrugated disk G', round parts G² G³, the corrugated disk J, said disk having lugs *m m'*, and the spring P in the case I H, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS J. MORGAN.

Witnesses:

GEORGE GAIDE,
WILLIAM H. YOUNG.