

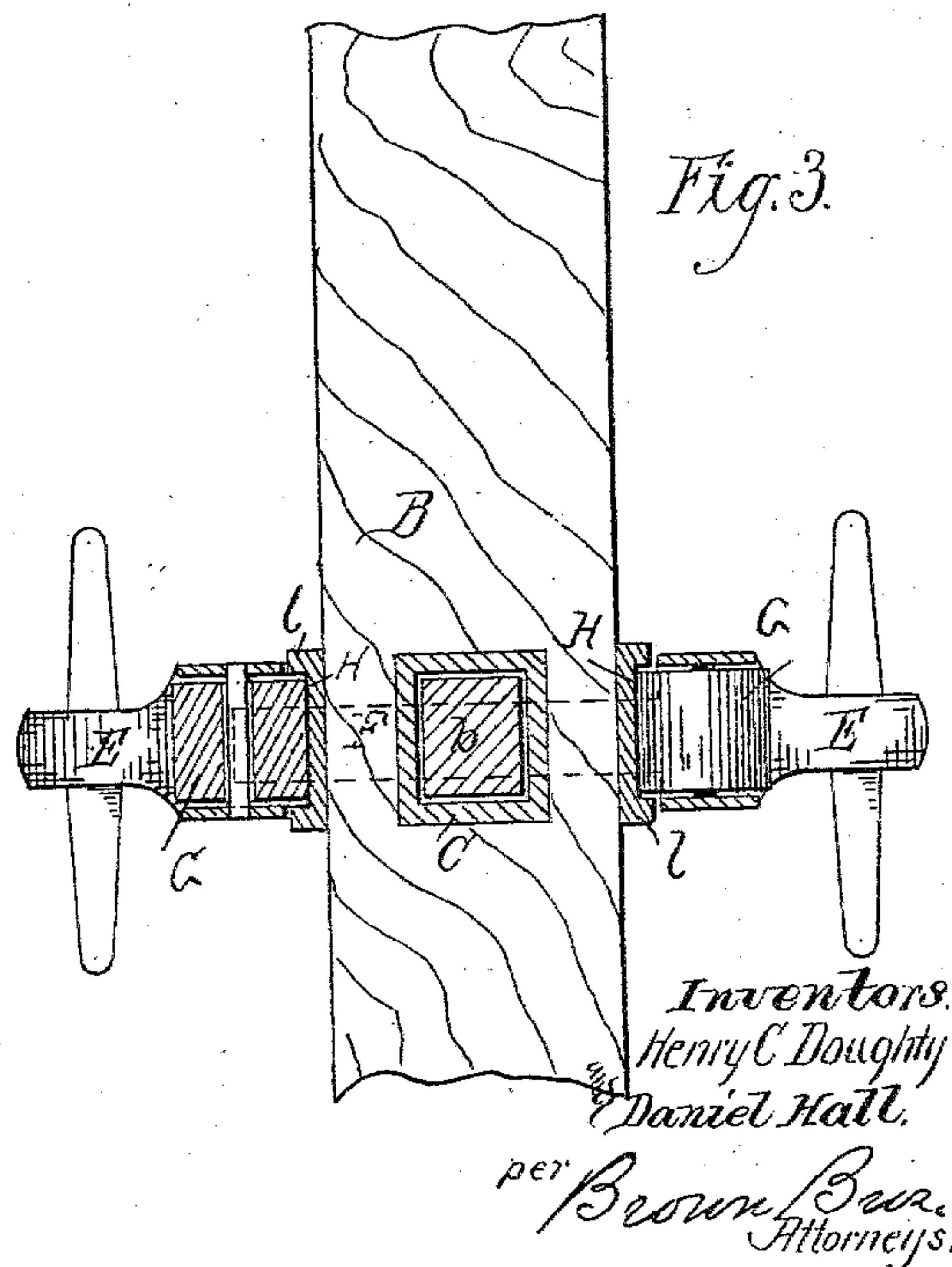
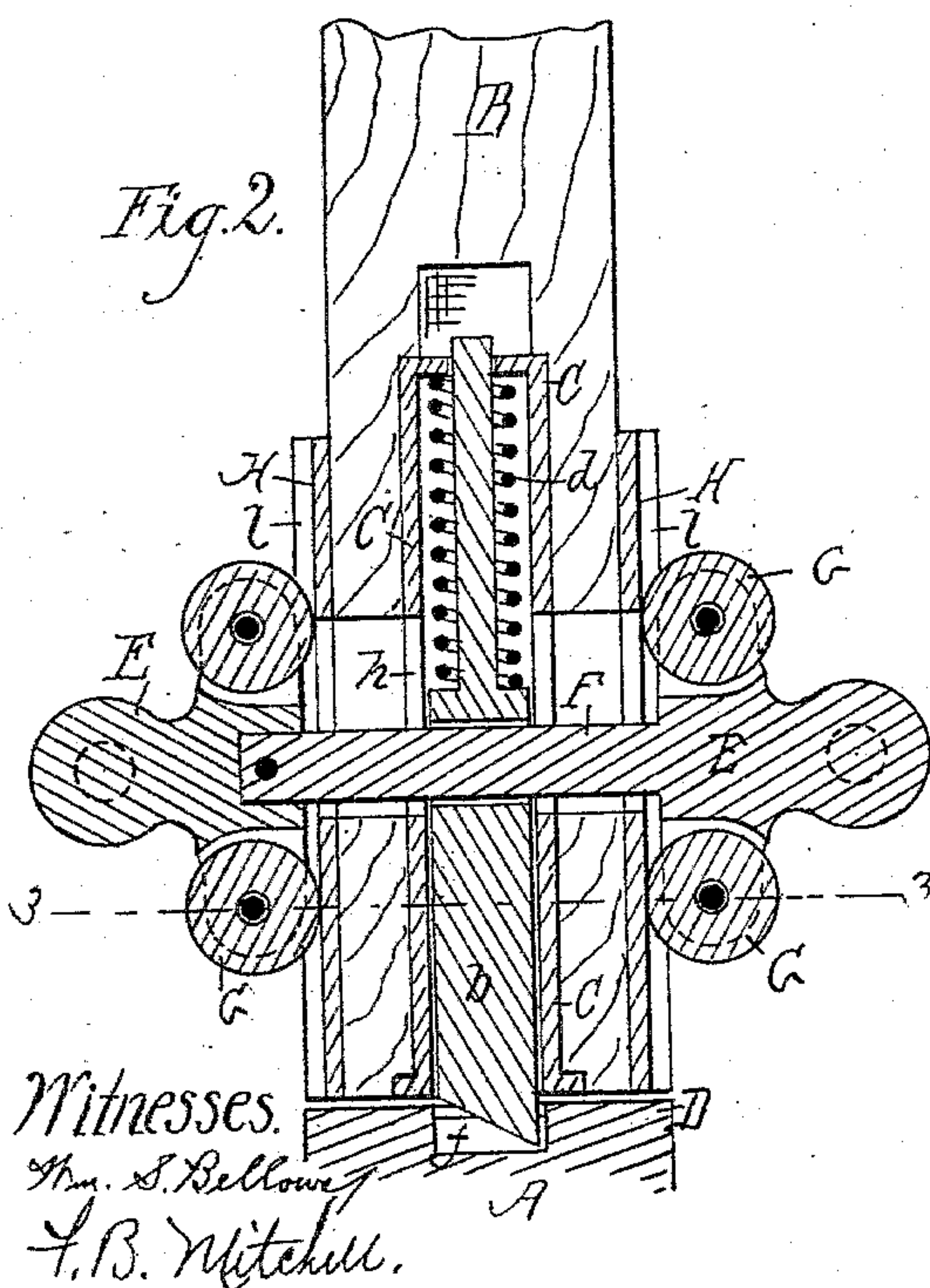
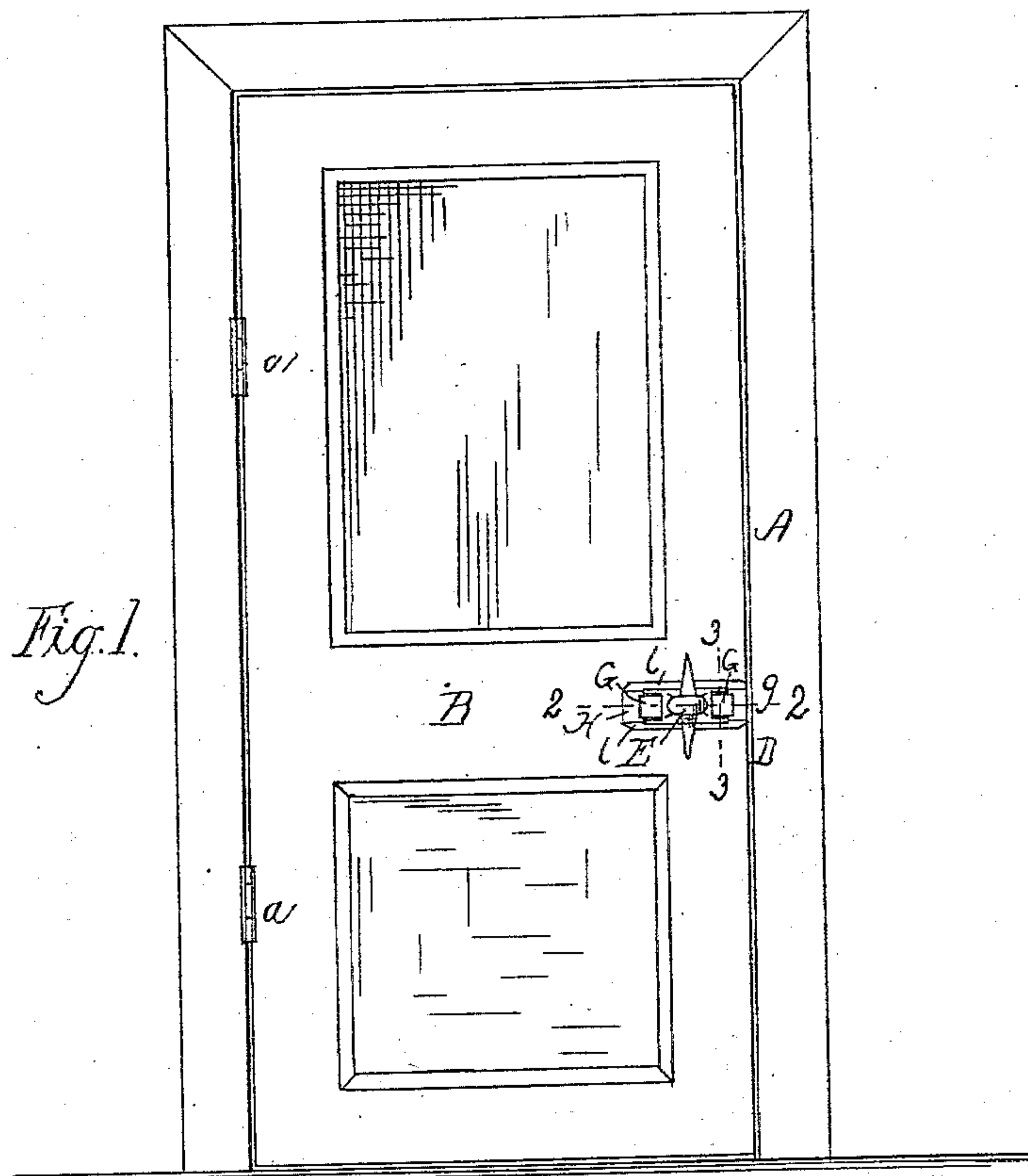
(No Model.)

H. C. DOUGHTY & D. HALL.

LATCH.

No. 281,036.

Patented July 10, 1883.



UNITED STATES PATENT OFFICE.

HENRY C. DOUGHTY, OF GRAY, AND DANIEL HALL, OF AUBURN, MAINE.

LATCH.

SPECIFICATION forming part of Letters Patent No. 281,036, dated July 10, 1883.

Application filed January 16, 1883. (No model.)

To all whom it may concern:

Be it known that we, HENRY C. DOUGHTY and DANIEL HALL, respectively of Gray and Auburn, in the counties of Cumberland and Androscoggin and State of Maine, have invented certain new and useful Improvements in Door and Gate Latches or Bolts, of which the following is a full, clear, and exact description.

In this improved door or gate latch or bolt the latch or bolt is arranged to slide in a suitable guideway, and is provided in its opposite sides with a handle, each of which handles carries two friction-rollers arranged to travel upon suitable bearing-surfaces in the slide of the latch or bolt, all substantially as hereinafter described.

In the accompanying plate of drawings, Figure 1 is a front elevation of a door and the frame of a door-opening, showing my improved gate-latch. Fig. 2 is a cross-section on line 2 2, Fig. 1. Fig. 3 is a section on line 3 3, Fig. 1.

In the drawings, A represents the frame of a door-opening, and B a door hung upon hinges *a*, and all as usual for opening and closing the door-opening by the swing of the door upon the hinges.

b is a latch-bolt arranged to slide freely forward and backward through a guideway or casing, C, and provided with a coiled spring, *d*, properly confined, to throw the bolt out and engage it with the recess or cavity *f* in one side *g* of the jamb D of the door-opening when the door is closed, and to allow the bolt to be retracted to disengage it from said recess *f* for the door to be opened.

E is a handle upon each side of the bolt *b*, connected together by a bar, F, passing through the bolt and its casing C, which latter is slot-

ted, as at *h*, for the slide of the bolt, as has been described, in its casing. Each handle E carries two friction-rollers, G, one upon each side of the central line through the bar F, and each pair of these rollers has a bearing upon surfaces H of the door, or other suitable part, which surfaces are parallel to each other and to the sliding frame of the bolt *b*, said surfaces having raised edges *l* for the guiding of the rollers in their movement. In the working of the bolt the pairs of rollers G secure ease and steadiness of movement thereto, all as is obvious.

An ordinary bolt may be used instead of a latch-bolt, and the invention is applicable to gate latches or bolts as well as door latches or bolts; and, again, the spring *d* for operating the bolt in one direction may be dispensed with, and one of the rollers on each side can be dispensed with, if desired, preferably the one nearest the outer end of the latch; but it is preferable to have both rollers on each side, as is obvious.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

A sliding bolt, *b*, and its guideway C, in combination with a handle, E, on each side of the bolt, and each handle provided with a friction roller or rollers, G, substantially as described, for the purpose specified.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

HENRY C. DOUGHTY.
DANIEL HALL.

Witnesses:

EMERY OSGOOD,
CHAS. F. GIBBS.