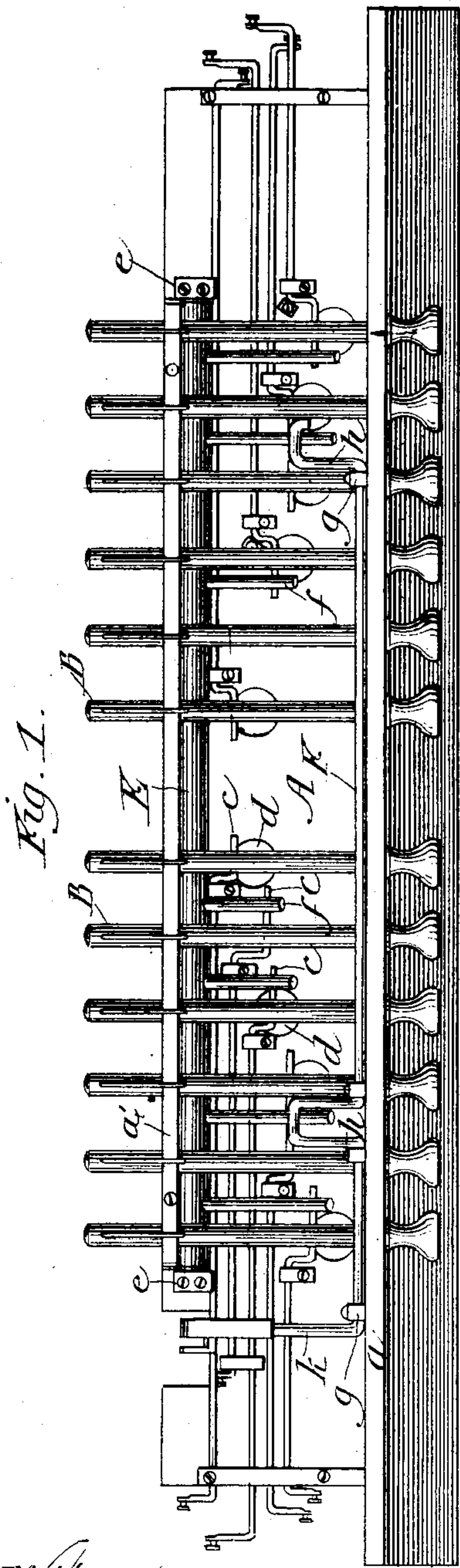


(No Model.)

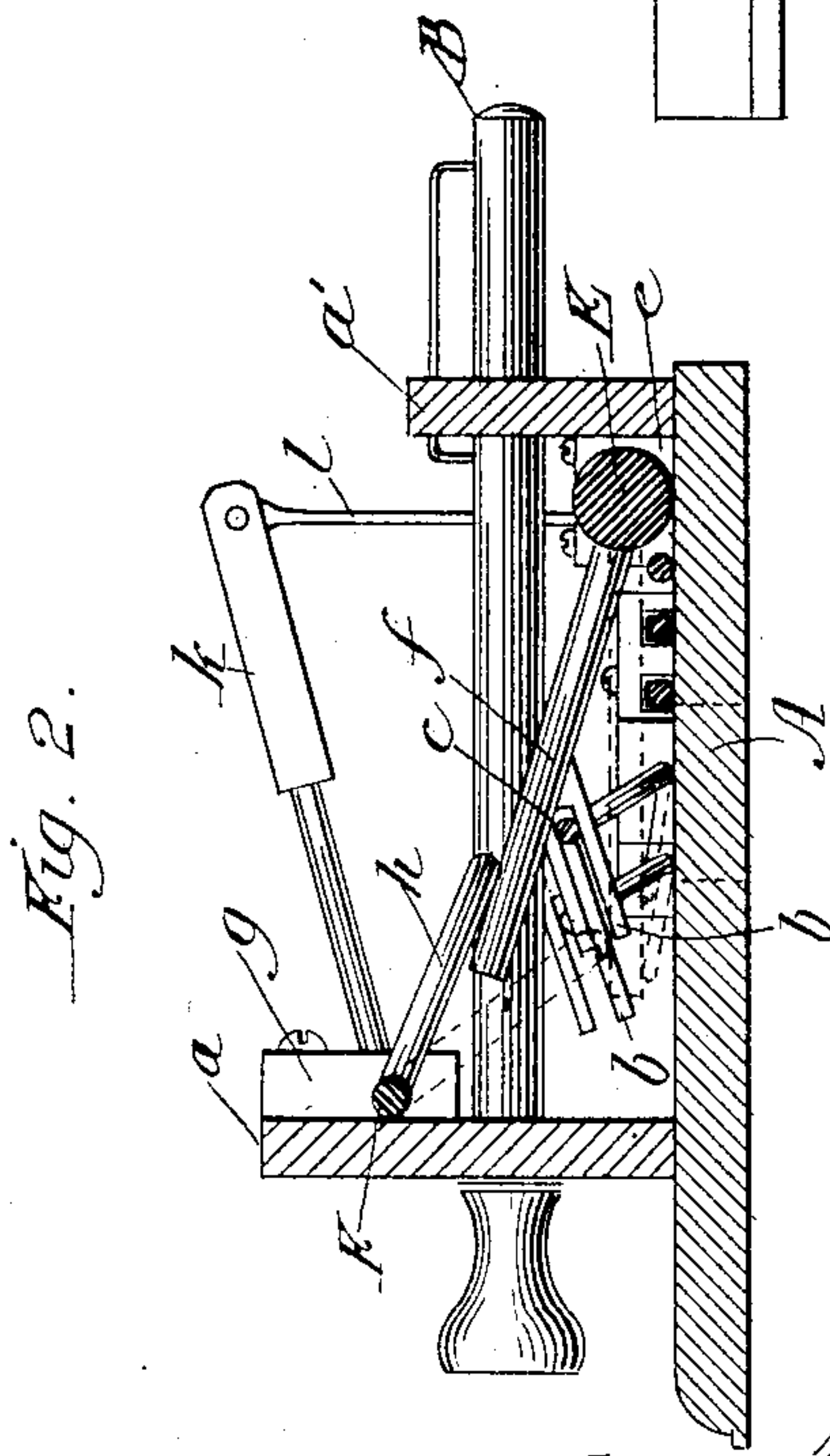
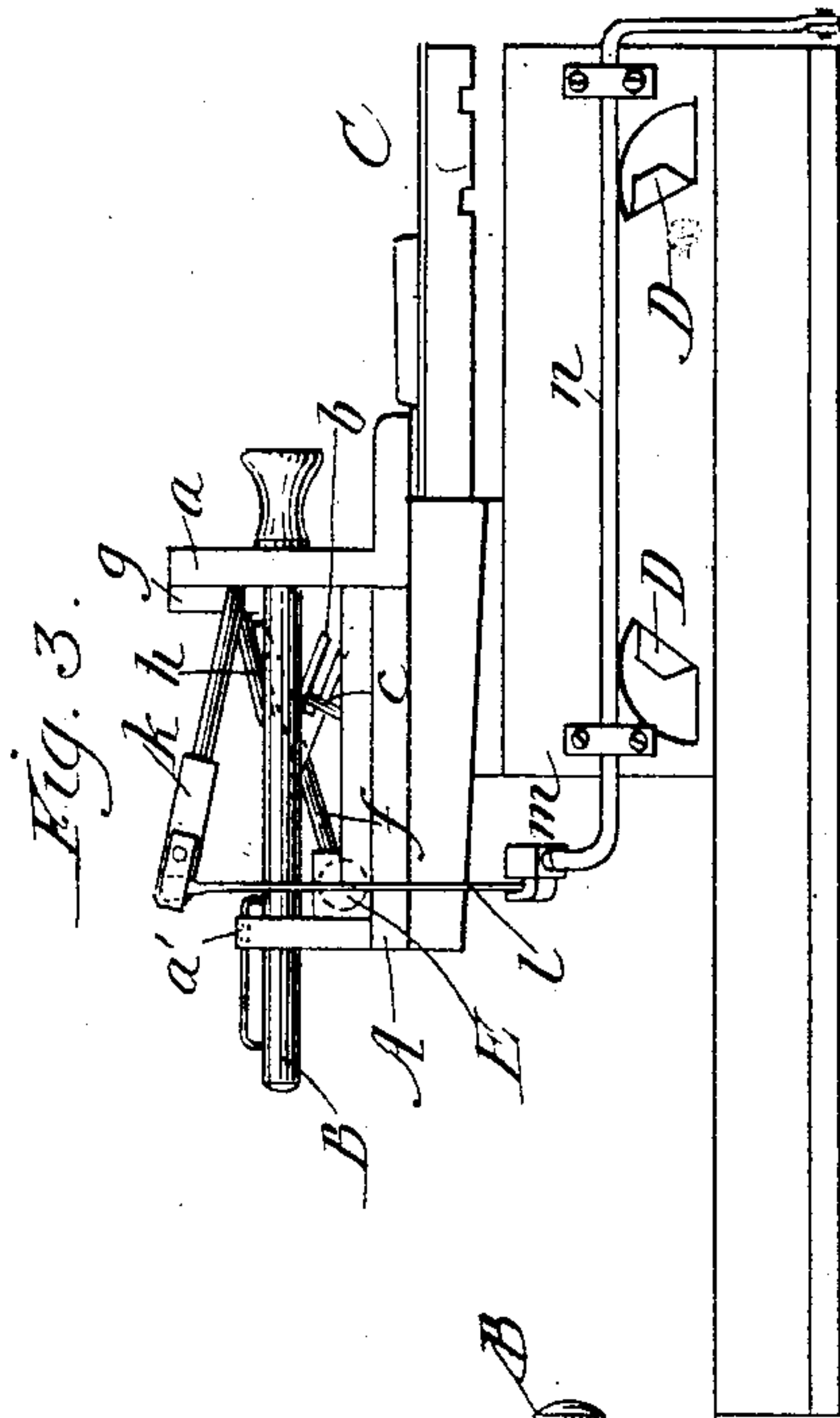
M. CLARK.
REED ORGAN STOP ACTION.

No. 326,274.

Patented Sept. 15, 1885.



Witnesses:
Frank Blanchard
Louis Nolting



Inventor:
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UNITED STATES PATENT OFFICE.

MELVILLE CLARK, OF CHICAGO, ILLINOIS.

REED-ORGAN STOP-ACTION.

SPECIFICATION forming part of Letters Patent No. 326,274, dated September 15, 1885.

Application filed December 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, MELVILLE CLARK, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Attachments for Organs, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved attachment for organs.

The object it has in view is to provide an attachment by the use of which the several stops of an organ may be easily operated.

To the accomplishment of the above ends the invention consists of the combination, with a roll provided with a series of arms adapted to operate the stop-wires, of a shaft provided with one or more loops, which engage corresponding arms of the roll referred to and operate the same; and the invention also consists of the novel connection of these parts with a suitable knee-swell, as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 is a top plan view of the stop-action board in detail; Fig. 2, a cross-section through the same, and Fig. 3 an end view showing one manner of forming the connection between the knee-swell and the other operative parts.

Like letters refer to like parts in each view.

A represents the name or stop-action board; B, the stops; C, one key; and D, the mutes, all of well-known construction.

The stops B have bearings in the front and rear uprights, *a a'*, and upon their under faces are provided with the pivoted and slotted arms *b*, into which the bent arms of the stop-wires *c* are inserted, as will be understood, the stop-wires *c* being also bent upon their outer ends, and connected in the ordinary way with suitable rods (not shown) to form connection with the mutes.

In the board A suitable openings, *d*, are formed, as usual, in order to give full play to arms *b* when the stops are operated.

By the arrangement of parts thus far described any single stop or as many as it is convenient for the organist to manipulate may be operated; but at times it is necessary to

have all the stops operated at once, and to accomplish this with convenience to the organist I use the following improved mechanism:

In suitable brackets, *e*, secured to the rear uprights, *a'*, I mount a roller or shaft, E, and provide the same with a series of arms, *f*, (one for each stop-wire,) said arms projecting outwardly from said roller toward the front of the instrument, thus occupying a position directly over the several stop-wires, which, after being passed through the slots of arms *b*, protrude sufficiently to form a bearing-point for arms *f* when depressed, as will be described.

To the rear face of front upright, *a*, there are secured suitable brackets, *g*, which serve as bearings for a shaft, F.

Shaft F is provided with suitable links or projections *h*, which are so arranged as to rest upon a corresponding number of the arms *f* with which roller E is provided, thereby holding such arms and roller in position. Any suitable number of links *h* may be used, and they may be formed upon shaft F at any suitable point or points, it only being necessary that a steady and uniform motion be imparted to roller E and its arms and through them to the several stop wires.

Upon one end of shaft F there is formed a crank-arm, *k*, to which one end of a rod, *l*, is secured, said rod being secured at its lower end to a crank-arm, *m*, formed upon one end of a shaft, *n*, which is also bent at its opposite end to form a suitable knee-swell.

The operation of the parts is as follows: By operating shaft *n* the shaft F is partly revolved through the medium of the intermediate connections described. Upon the revolution of shaft F the links *h* serve to force the arms of roller E down and contact each of said arms with a particular stop-wire, the several stop-wires being thus operated upon simultaneously, and the entire instrument thrown open the same as if each stop had been operated separately. To carry the parts back to their normal positions, it is only necessary to remove the pressure from the knee-swell, when the pressure from the mutes will cause them to return; but to provide against any hitch it may be advantageous to form roller E with a suitable spring.

It will be understood that I do not wish to confine myself to any particular connection between the knee-swell and the other operative parts; nor to the exact construction of shaft F, as such parts might be greatly varied without departing from the invention.

The advantages of the attachment are that it is compact in form, and therefore takes up but little room. The connection with the knee-swell is such as to afford an easy movement, and to effectually avoid all danger of any of the mutes not being operated upon.

What I claim is—

1. In an organ, the combination, with the stops and stop-wires, of a roller provided with an arm for each stop-wire, a shaft provided with one or more projections to engage with a corresponding number of said arms, a knee-

swell, and suitable intermediate mechanism for operating the shaft from the knee-swell, as set forth.

2. In an organ, the combination, with the stops and stop-wires, of a roller provided with an arm for each stop-wire, a shaft provided with one or more projections to engage with a corresponding number of said arms, and also provided with a suitable crank-arm, a knee-swell, and a rod connecting said crank-arm and knee-swell, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MELVILLE CLARK.

Witnesses:

W. J. CLAGETT,
FRANK S. BLANCHARD.