

(No Model.)

S. HOWARD.
SOLO ATTACHMENT FOR ORGANS.

No. 596,510.

Patented Jan. 4, 1898.

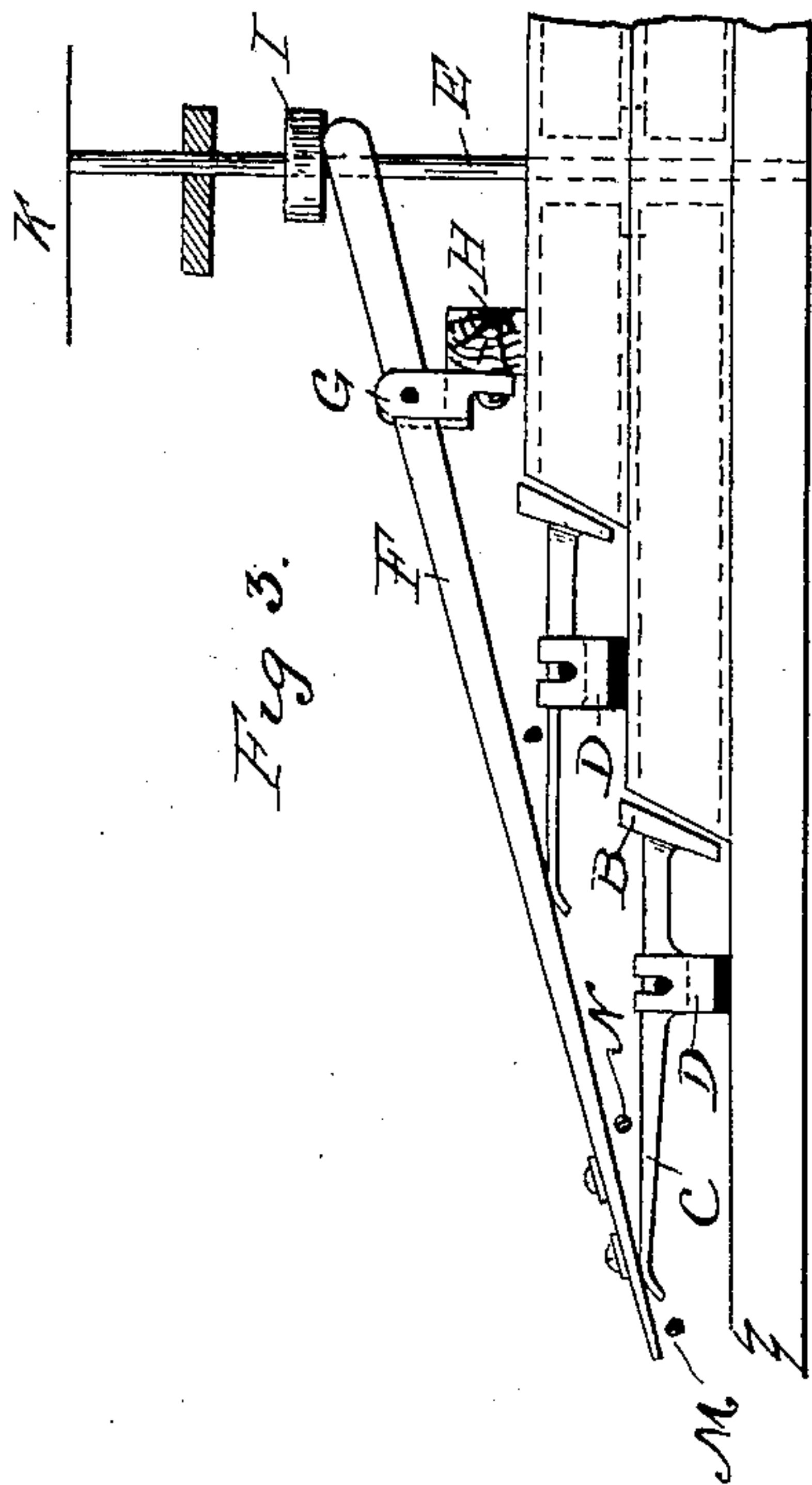


Fig 3.

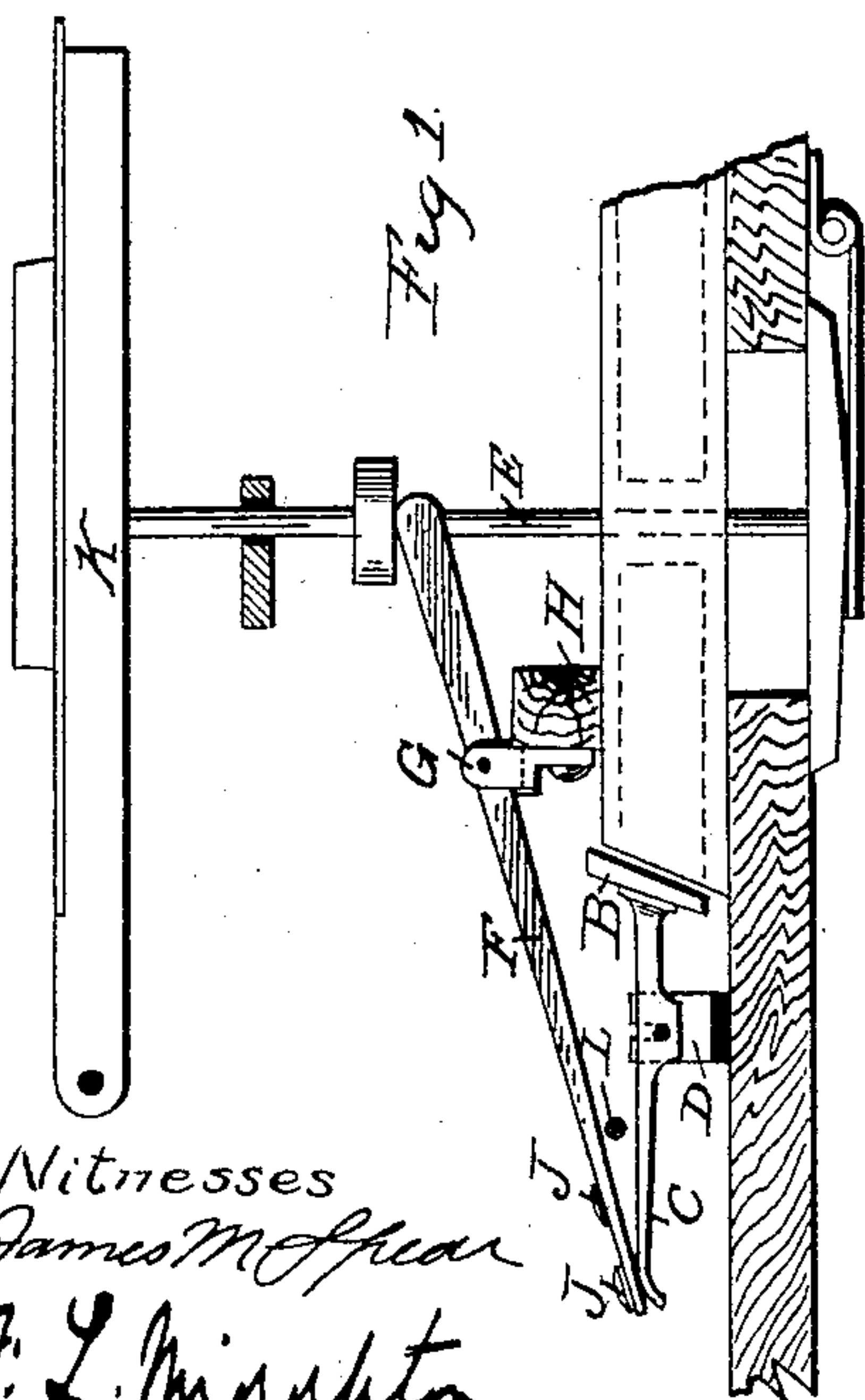
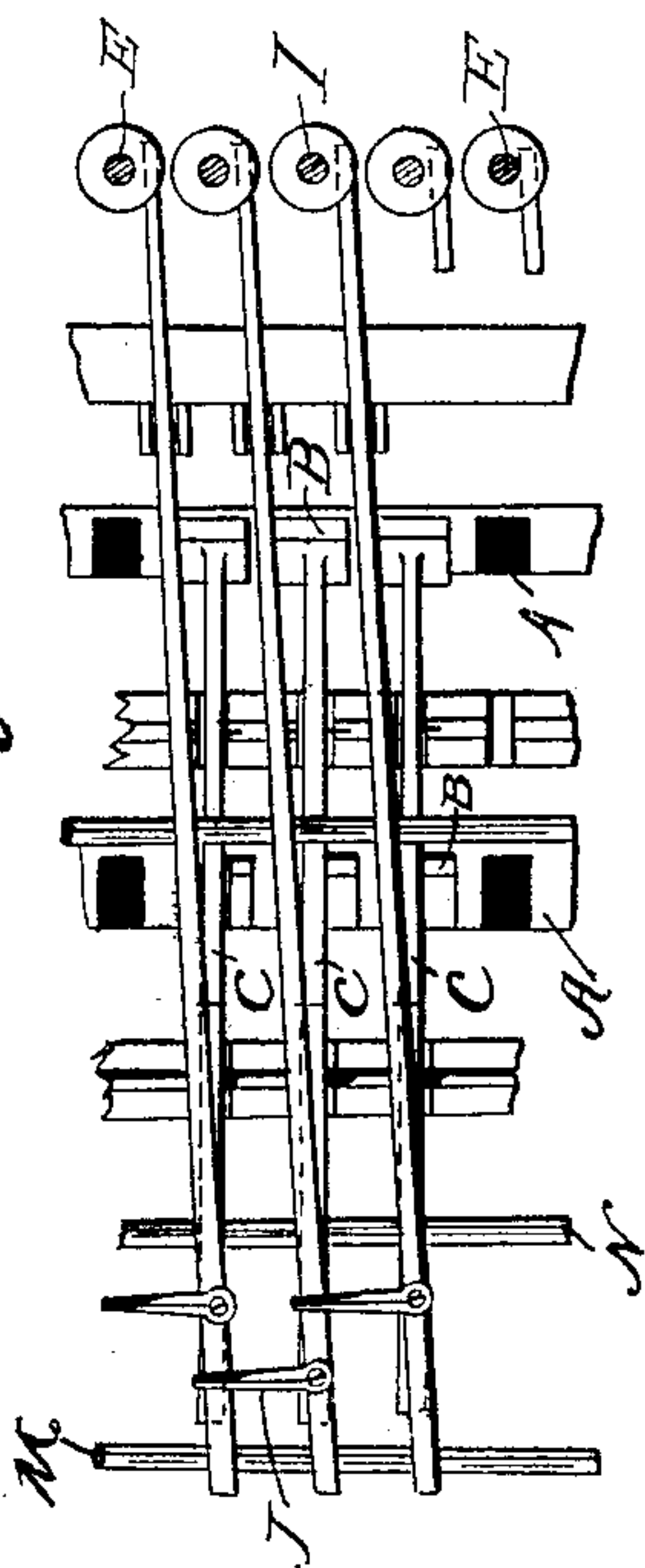
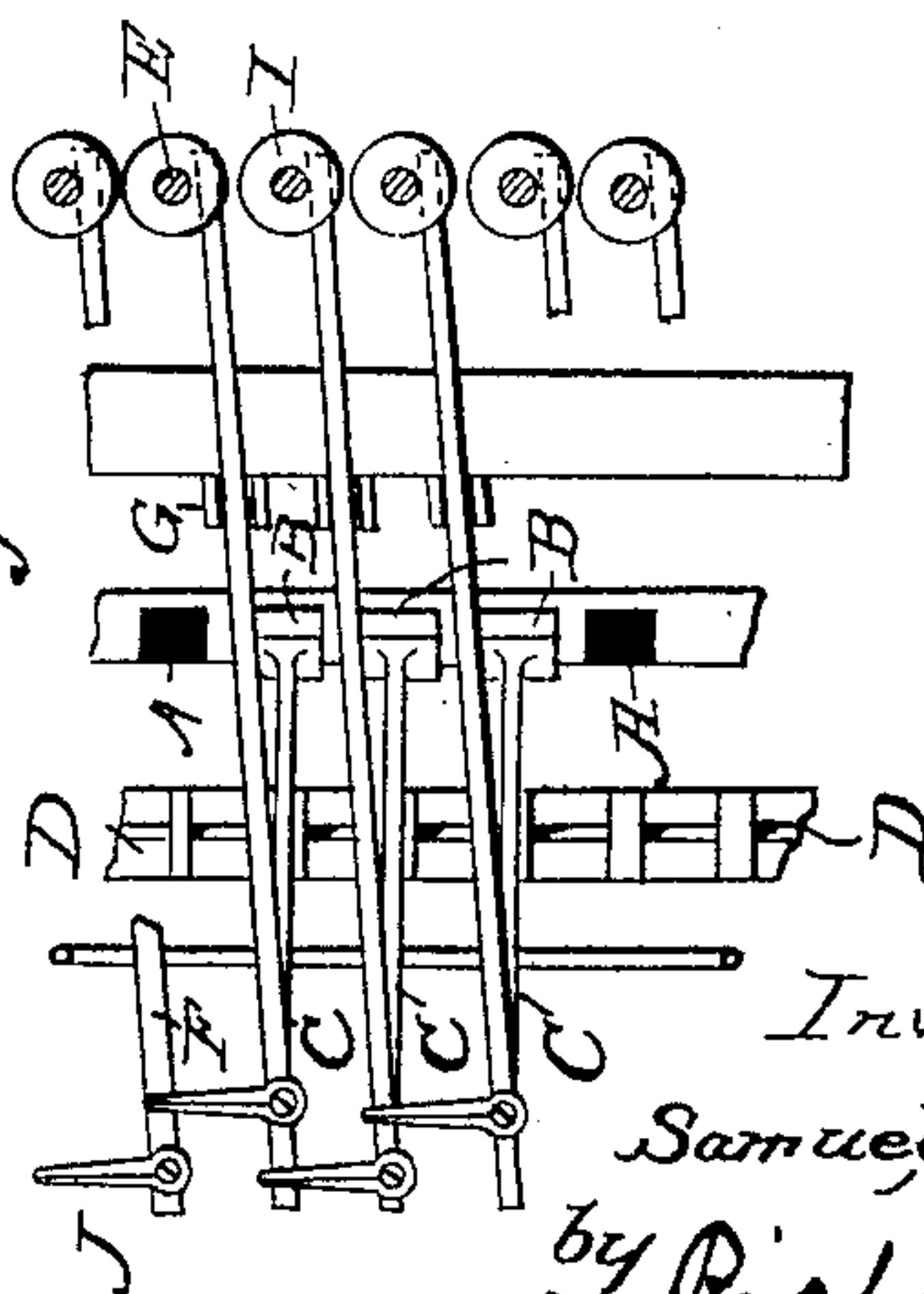


Fig 1.

Fig 2.



Witnesses
James M. O'Leary
F. L. Minkton

Inventor
Samuel Howard
by Richards & Co.
Attys.

UNITED STATES PATENT OFFICE.

SAMUEL HOWARD, OF MANCHESTER, ENGLAND.

SOLO ATTACHMENT FOR ORGANS.

SPECIFICATION forming part of Letters Patent No. 596,510, dated January 4, 1898.

Application filed April 10, 1897. Serial No. 631,643. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HOWARD, a subject of the Queen of Great Britain and Ireland, and a resident of Manchester, England, have invented a certain new and useful Improvement in Solo Attachments for Organs, of which the following is a specification.

My invention relates to American organs and to all other musical instruments of a like kind (automatic or otherwise) operating by an exhaust action on the reed-box or cavity-board or equivalent part of the instrument.

The object of my invention is to bring into prominence the extreme note or notes—uppermost or (and) lowermost—of each chord of a piece of music at the will of the organist or player without special effort and so enable the melody or bass of a tune or song to be readily brought out or emphasized; and with that object in view my invention consists, essentially, in means for muting or silencing certain lower or higher notes (according as it is the treble or bass) and allowing the top or lowest note only of a set of reeds to sound; and in order that my said invention may be readily understood I have hereunto annexed a sheet of drawings illustrating the application of my invention to an American organ, to which it chiefly applies, and will now proceed to describe the same with the assistance of the various letters of reference marked thereon.

Figure 1 is a transverse section of an organ reed-box or cavity-board comprising four sets of reeds—two full rows. Fig. 2 is a part plan. Fig. 3 is a similar view of an organ reed-box or cavity-board, but comprising eight sets of reeds—four full rows. Fig. 4 is a part plan.

In carrying out my invention, which I will first describe in reference to Figs. 1 and 2 and in relation to the “celeste-stop” of an existing American organ with two sets of reeds in the treble, (diapason and celeste,) I first remove or dispense with the usual shutter or continuous “mute,” which has hitherto served to close or cover up all the cavities A leading to the “celeste” set of reeds. In the place of such continuous mute I substitute a series of miniature mutes B (one for each cavity) and carried by a stem C, mounted or fulcrumed in rail D and so proportioned

or balanced as when left to themselves to lie over and close the cavities of the reed-box.

Between the usual plungers or pitman-rods E, which under the action of the organ-keys do service in operating the pallets of the reed-box, I arrange a set of levers F, fulcrumed in brackets G, fixed to rail H. Owing to the peculiar diagonal setting of these levers one extremity of each lever lies beneath a collar I on a plunger E and the other extremity upon the stem C of the miniature mute, which covers the cavity A of the next lower reed. The collars I are those usually provided for the “octave-coupler,” but special or equivalent collars are provided where such collars are not used. Upon one or other of the extremities or any other part of each of the levers F, but preferably upon the extremity resting upon the mute-stem, I fix a finger or extension J, which is designed to overlie one, two, or more of the other levers identified with or representing the higher notes.

The normal position of the parts for the treble (celeste) is as shown in Fig. 1—i. e., with the mutes B raised by reason of the weight of the levers F upon the stems C.

Upon a key K being depressed in playing the organ it will depress a plunger E, which in turn, by contact of the collar I, will depress the shorter arm and raise the longer arm of a lever F. The raising of the longer arm of said lever will immediately relieve the stem C of the mute B belonging to the cavity identified with the plunger of the next lower note and allow such mute to mute or cover up the said cavity, while the cavity belonging to the depressed plunger will remain uncovered. This same action occurs with the depression of any or all the plungers or levers, each one serving to mute the next lower note.

As it is desired to silence all the lower celeste notes, I provide the fingers J aforesaid, which, overhanging the levers in the manner shown in Fig. 2, cause the action of any one of the levers to be imparted or conveyed to all the other levers belonging to the lower notes and so insure all the mutes of the lower notes muting their respective cavities.

In proceeding to play the organ and with the diapason-stop drawn the action of my “melody” attachment is to give prominence

to the highest notes of each chord, (two reeds sounding for each note to one in the case of the lower and middle notes,) and with the "full-organ" and octave-coupler drawn such

5 notes are given special prominence.

As applied to the cavities or set of reeds representing the bass the arrangement of levers F, mutes B, and stems C is exactly the same, with the exception that the longer arms

10 of the levers F rest upon the stems of mutes representing the higher notes instead of the lower notes, as in the treble, and the fingers J take over the levers representing the lower notes.

15 In Figs. 3 and 4 I show my invention as applied to an organ with eight sets of reeds and showing how the one lever F serves for operating two mutes. In this example I prefer to apply my invention to two sets of treble

20 openings or reeds and one set of bass openings or reeds.

While operating independently, as aforesaid, for the purpose of my invention it will be seen that the mutes B can be used collectively and serve the purpose of a continuous

25 mute, since by providing a rail or rod L, running beneath the levers F and connected to a suitable "stop" in the front of the organ, they (the levers) can be all raised clear of the

30 mute-stems or all be lowered, as required. By allowing this same rod and stop to have two degrees of movement it may serve to keep all the mutes open (by being lowered

35 closed (by raising the levers F) or (by being caused to lie out of touching contact with either levers or stems) allow the stopping-out or silencing of the notes, as aforesaid, to be effected. For producing the same effect in the

40 arrangement shown in Figs. 3 and 4 I provide three rails or rods M, N, and O, the rod M serving to lift the levers F from off the

45 the whole row of mutes open when required under the action of a suitable stop or stops.

In conclusion I would have it observed that the form of levers and stems and the method of mounting the same are important features

50 of my invention, since they lend themselves to the present construction of organ, and, moreover, all springs or complications are avoided and no appreciable resistance is

added to the keys. Moreover, by allowing the mutes to cover the cavities by their own weight 55 they enable the air which is exhausted through the reed-box to quickly draw and hold them over their cavities.

Having thus particularly described and ascertained the nature of my said invention 60 and in what manner the same is to be performed, I wish it to be understood that I do not confine myself to the exact details, relative proportions, or dimensions of my improved melody action, or to the number, kind, 65 and order of levers or stems for arriving at same end, since the same may be varied without departing from my invention, and

What I claim, and desire to secure by Letters Patent, is— 70

1. In combination in an organ, the reed-box having the cavities, a separate mute for each cavity, a series of levers for controlling the mutes and the plungers for controlling the levers each lever acting upon the mute 75 of the next higher or lower note to permit such mute to mute its cavity, substantially as described.

2. In American organs and like musical instruments operating on the exhaust principle, 80 the combination of pallet-plungers E, collars I, levers F, brackets G, rail H mutes B carried by stems C, all mounted and operating as and for the purposes set forth.

3. In combination in an organ, a plurality 85 of sets of reeds, the independent mutes for controlling the cavities thereof, the levers F operating upon said mutes and independent plungers for operating the levers.

4. In combination in an organ, the reed-boxes having cavities, the independent mutes 90 for the said cavities, the levers F with operating means therefor, and the cross rod or rail for operating upon the lever to control the same, substantially as described. 95

5. In combination in an organ, the reed-box having the cavities, the independent mutes, the levers F controlling the same, means for operating the levers and the plurality of cross-rods for controlling the action 100 of the said levers, substantially as described.

SAMUEL HOWARD.

Witnesses:

WALTER GUNN,
EMILY GUNN.