

(No Model.)

W. R. EDDINGTON.

KEY BOARD ATTACHMENT FOR MUSICAL INSTRUMENTS.

No. 326,412.

Patented Sept. 15, 1885.

Fig. 1.

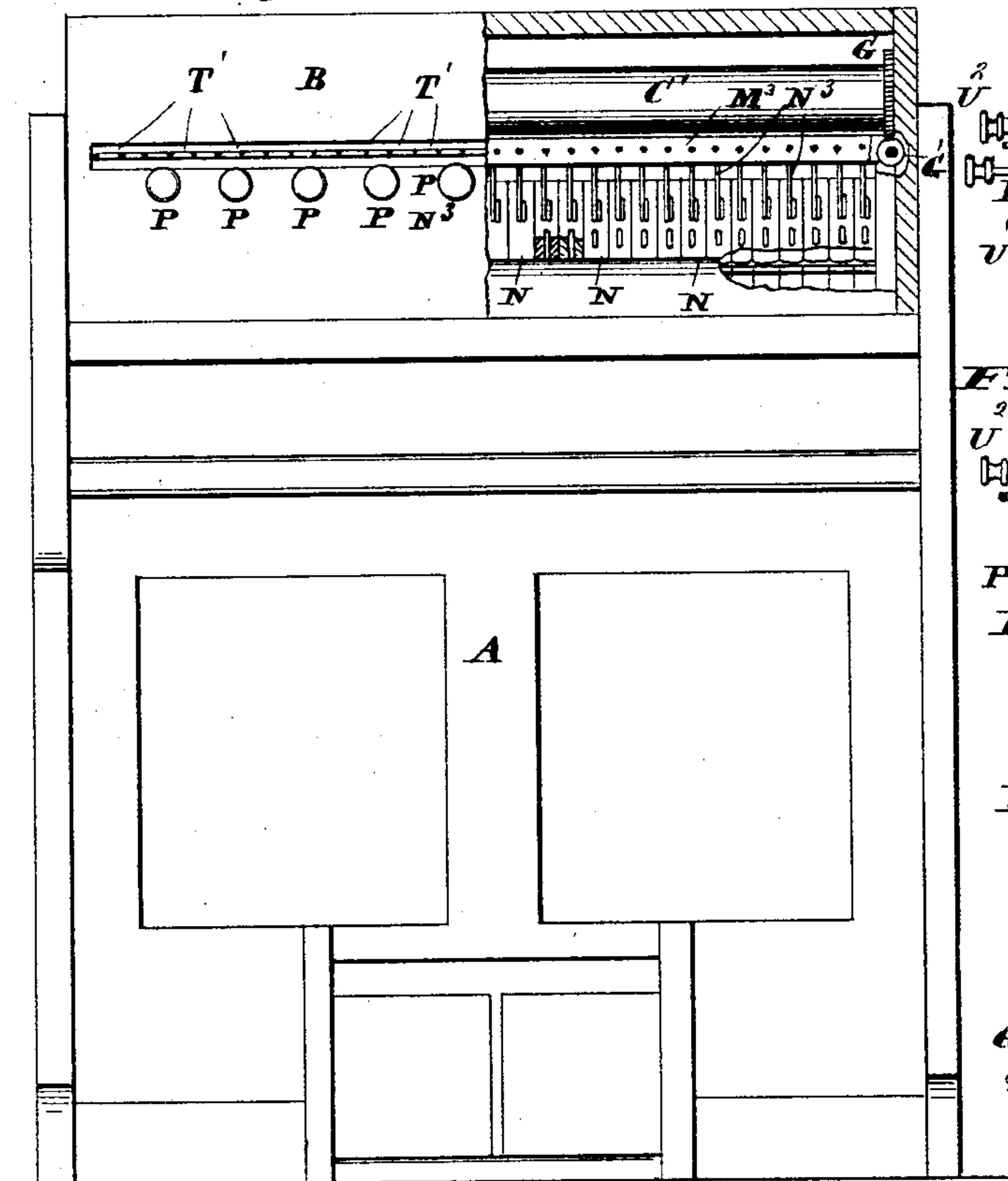
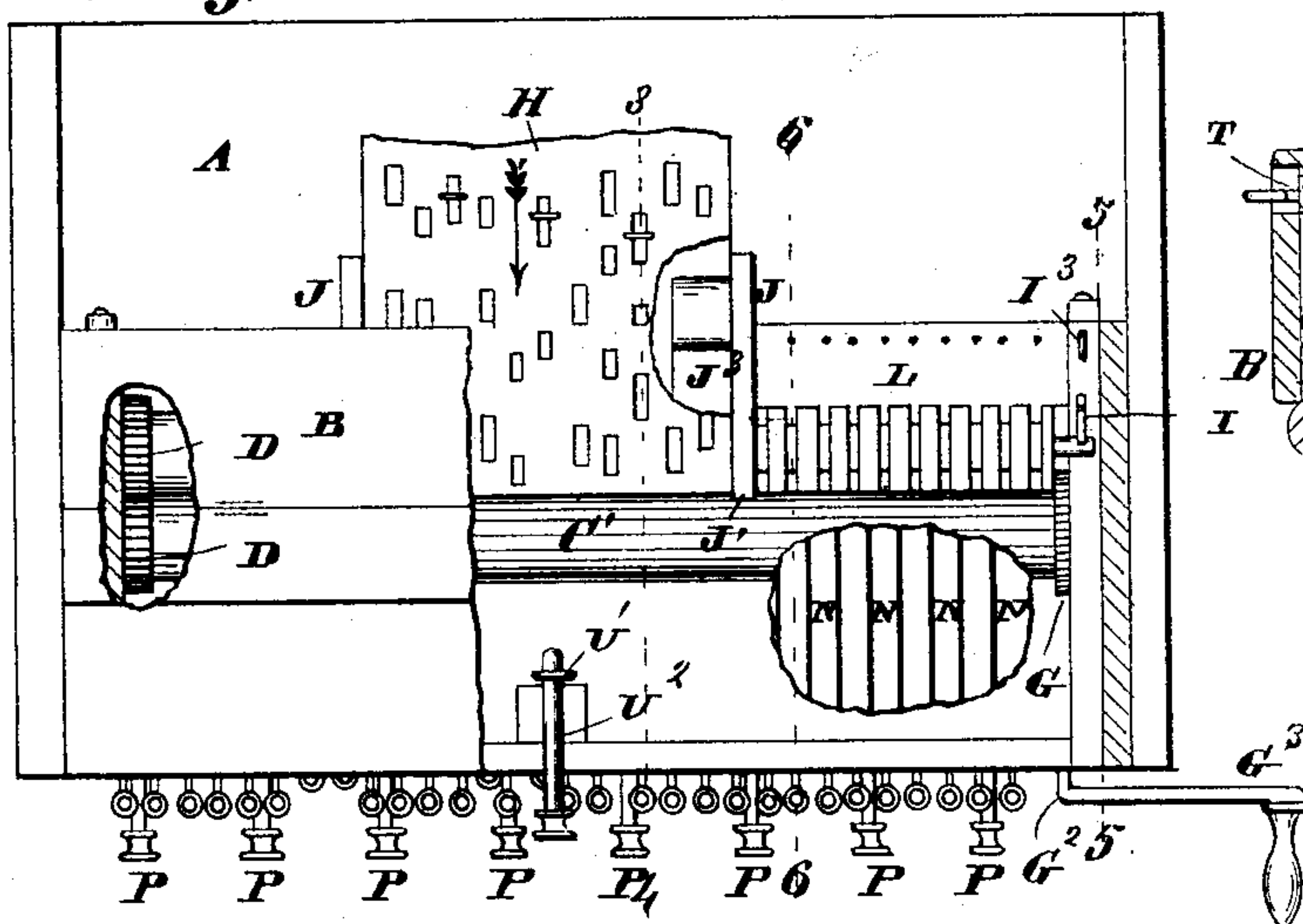


Fig. 2.



Attest;

Edward Stew.
Geo. L. Wheelock

Fig. 3.

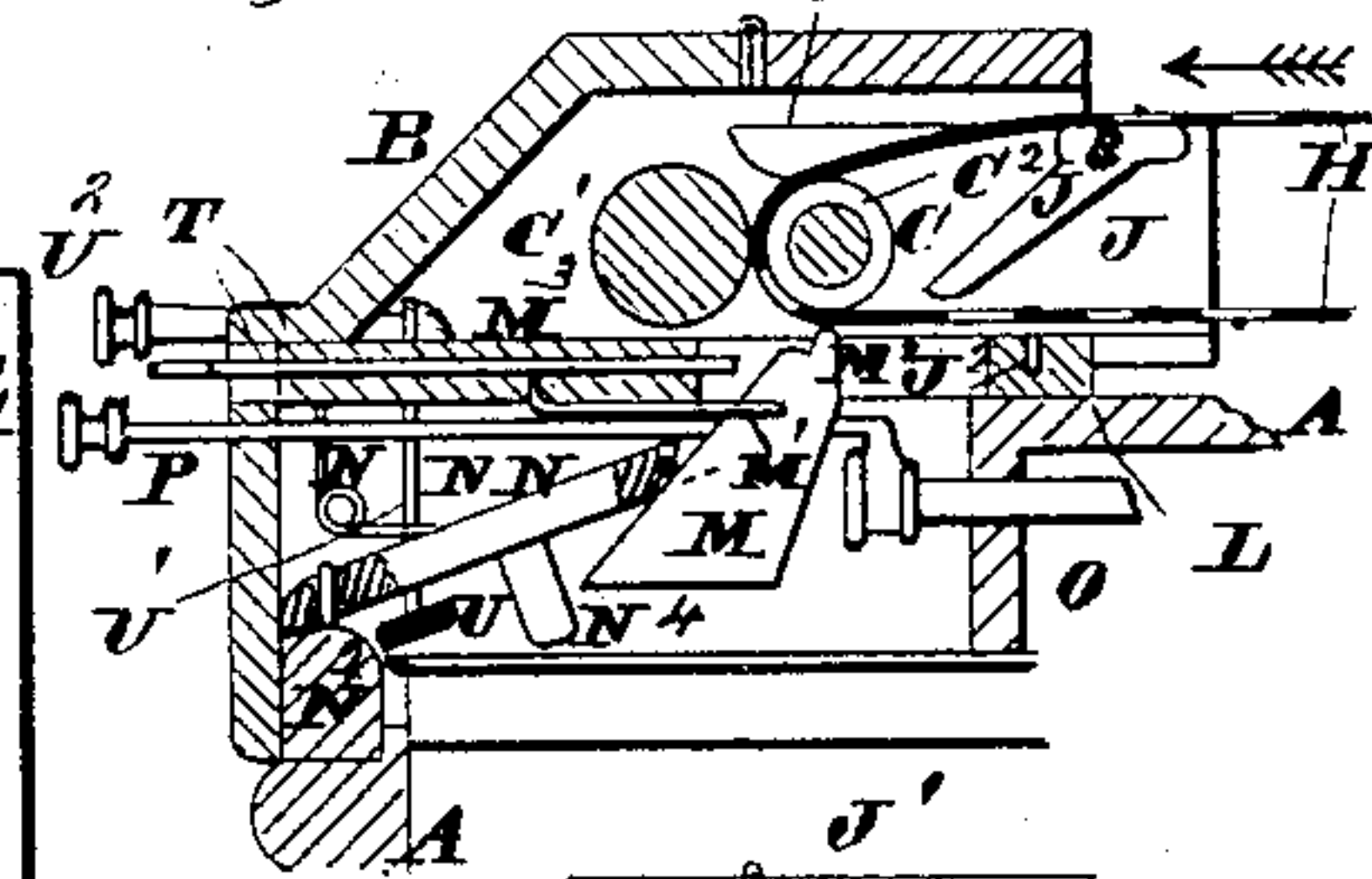


Fig. 4

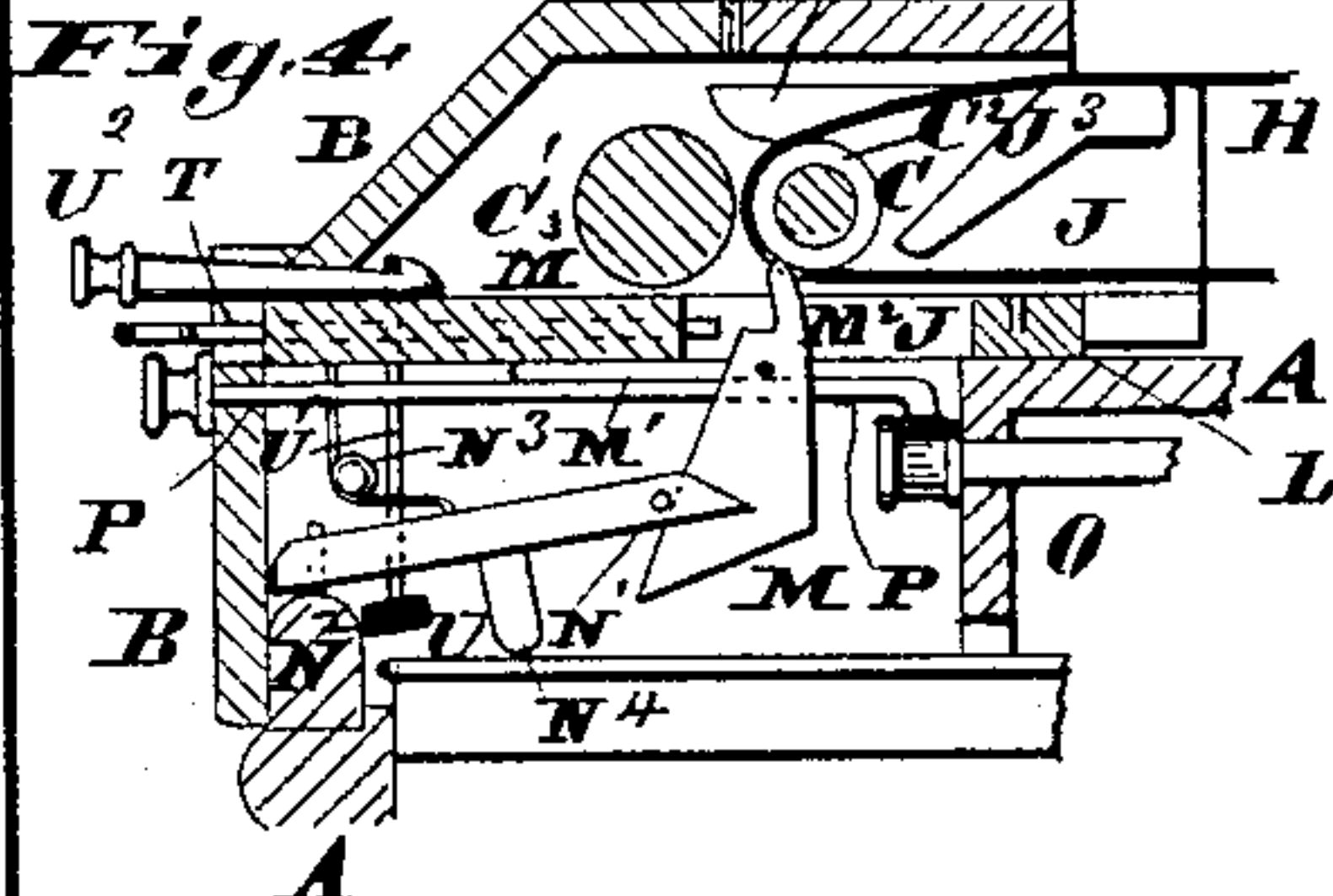


Fig. 5.

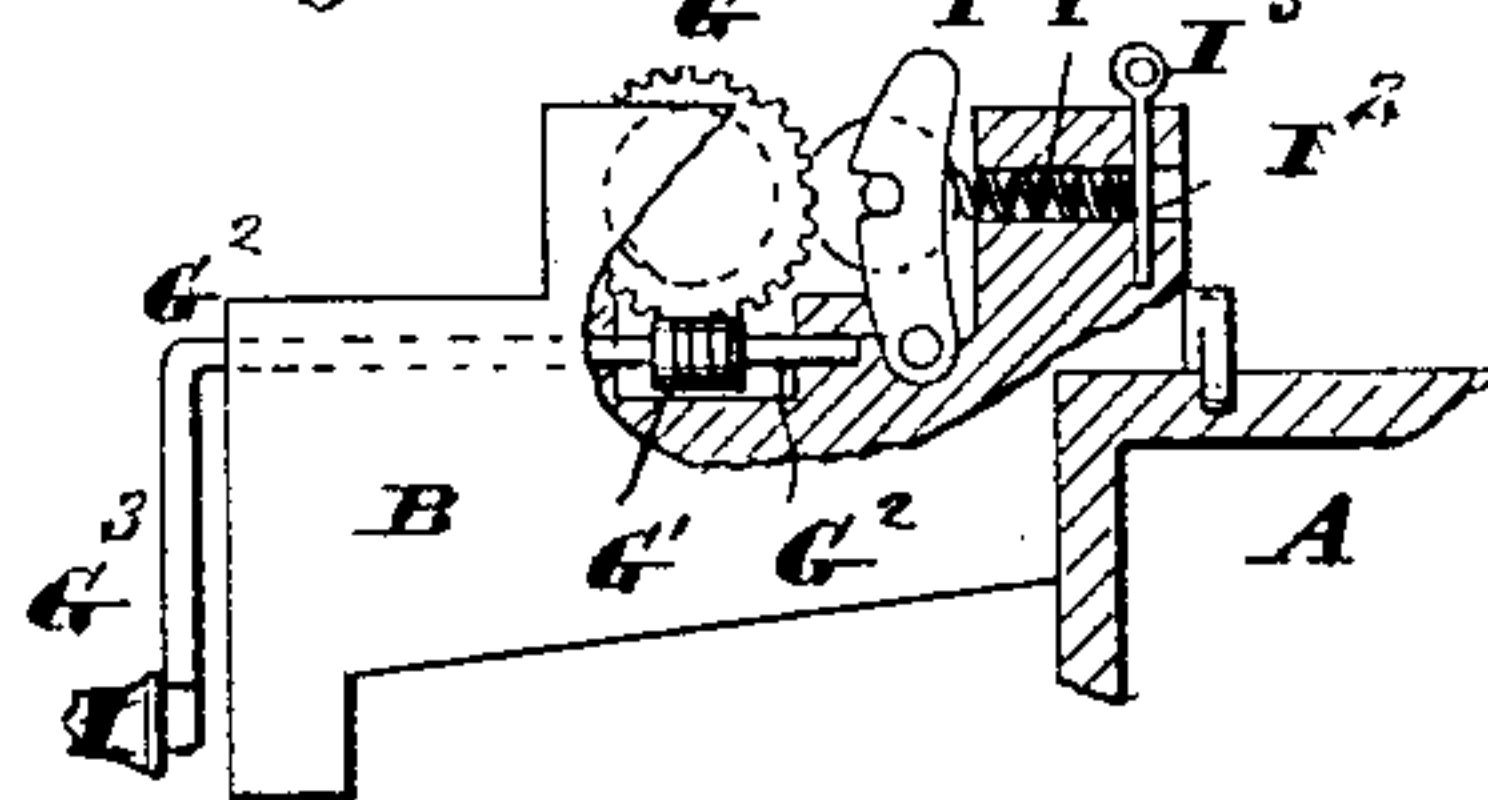
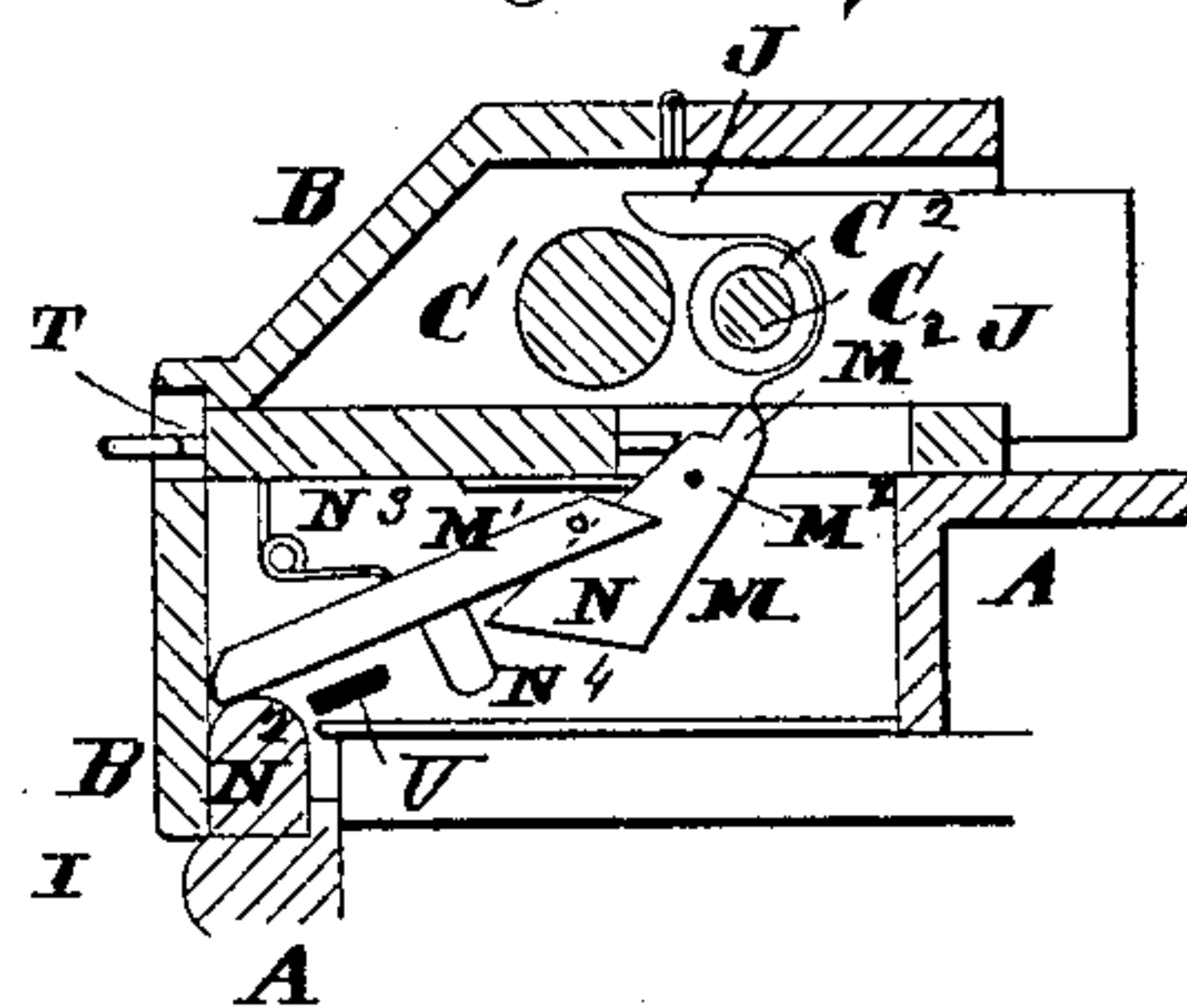


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM R. EDDINGTON, OF WOODBURN, ILLINOIS.

KEY-BOARD ATTACHMENT FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 326,412, dated September 15, 1885.

Application filed March 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. EDDINGTON, of Woodburn, in the county of Macoupin and State of Illinois, have invented a certain new and useful Improvement in Piano and Organ Key-Board Attachments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in

10 which—

Figure 1 is a front view of an organ and my attachment, the latter being part in vertical section. Fig. 2 is a top view of same, the attachment being part in horizontal section. Figs. 3 and 4 are vertical sections taken on line 3 4, Fig. 2, showing the parts of the attachment in different positions. Fig. 5 is a section taken on line 5 5, Fig. 2; and Fig. 6 is a similar view taken on line 6 6, Fig. 2.

20 My invention relates to an attachment for common or ordinary pianos and organs or any musical instruments of this character, whereby the keys can be operated by mechanical means in the same manner and to the same perfection as if operated by hand.

25 My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, A represents an ordinary organ, over the finger-keys of which my improved attachment is placed and can be removed at pleasure.

35 B represents the housing or casing of the attachment, in which are pivoted rollers C C', connected by gear-wheels D and turned by a wheel, G, on the roller C', engaged by a worm, G', on a shaft, G², provided with a crank, G³, or they may be turned by other suitable mechanical means.

40 H represents an endless perforated apron extending over the roller C, so that by turning the rollers the apron is moved in the direction shown by the arrows in Figs. 2 and 3. One end of the roller C can be raised to attach and remove the apron by forcing back a lever or arm, I, (see Fig. 5,) which has a notch to receive the gudgeon on this end of the roller. The arm is held forward when not forced back by a spiral spring, I', fitting in an opening, I², in the housing and held therein by a pin, I³.

On each side of the apron is a strip, J, notched at its inner end (see Fig. 6) to receive the roller C, and having a projection, J', that extends over the roller to guide the apron. These strips have pins J² on their under edges to fit in perforations in a strip, L, secured to the ends of the casing and extending entirely across the attachment. The strips can thus be moved toward one end or the other of the attachment, and thus the apron can be shifted from one octave to another, or the strips can be moved farther apart or nearer together to suit aprons of different widths. On the inside of the strips J are projections J³, which support the upper part of the apron. The strips can be connected, if desired, by suitable means.

Pivoted within the housing are levers M. I prefer to pivot them by means of arms M' to a piece, M³, projecting inward from the front wall of the housing. Each of these levers has a small upper end, M², which enters its respective line of the perforations in the apron, and the levers are moved by the hammers N from the position shown in Fig. 3 to that shown in Fig. 4, and the roller C has circumferential grooves C², which the upper ends of the levers enter as they extend slightly beyond or above the lower part of the apron when in the perforations.

80 The front faces of the levers are inclined, and against them bear pins N', projecting from the hammers N, pivoted to the front wall or to a strip, N², secured to the front wall of the housing. There is a hammer for each lever, and they are forced down when the lower ends of the levers recede, as described, by springs N³, and when they are thus forced down they depress the keys of the organ and piano, as shown in Fig. 4, each one having a projection, N⁴, that strikes the keys. The hammers are raised again by the moving apron, and are sustained until the upper ends of the levers enter other perforations in the apron; and thus it will be seen that by turning the crank G³ the keys of the organ or piano are operated on the same principle as by human hands. When the attachment is applied to an organ, the stops O (see Figs. 3 and 4) can be pulled out or pushed at will by rods P, with

knobs on their outer ends and forked at their inner ends to engage the knobs of the stops. These rods fit in holes made in the front wall of the housing.

- 5 Any lever can be forced out of engagement with the apron (see Fig. 6) by means of rods T, (one for each lever,) which fit in holes made in the piece M³, and thus any one or more of the hammers can be prevented from operating while the others are not interfered with.

10 All the hammers can be raised, at once if desired, by a bar, U, beneath the hammers, to which is connected a rod, U', with a loop on its upper end, through which passes a wedge, U², with a knob on its outer end. By pushing the wedge in, the bar is raised, thus preventing the hammers from falling on the keys.

I claim as my invention—

- 20 1. In a key-board attachment, the combination of the housing to seat over the key-board, rollers C and C', pivoted therein, means for turning the rollers, levers M, depending from the housing and having points or ends M², to project into the apron-openings, and inclined front faces, hammers N, hinged to the front wall of the housing and bearing on the faces of the levers, and springs to bear on the hammers.

- 30 2. In a key-board attachment, the combination of the housing to seat over the key-board, rollers C and C', piece M³, extending inward from the front wall of the housing, arms M', extending inward from the piece, levers M, having ends M² and pivoted to the arms, hammers N, hinged to the front wall and bearing on the faces of the levers, and springs for depressing the hammers.

3. In a key-board attachment, the combination of the housing, depending levers M, pivoted to the housing, hammers hinged to the front wall of the housing and bearing on the levers, bar U, extending beneath the front ends of the hammers, rod U', supporting the bar, and wedge U², supported by the housing for elevating the bar to raise the hammers and disengage the levers from the apron.

4. In an attachment for organs, &c., the combination of the hammers N, levers M, apron H, and rollers C C', the roller C being held in place by a spring-arm at one end, so that it can be raised, for the purpose set forth.

5. In an attachment for organs, &c., in combination with the apron H and rollers, the strips J, having projections J³, for the purpose set forth.

6. In an attachment for organs, in combination with the apron H and operating-rollers, the adjustable strips J, for the purpose set forth.

7. In a key-board attachment, the combination of the housing, levers M, pivoted to and depending from the housing, and the rods T, for throwing the upper ends of the levers out of engagement with the apron.

8. In a key-board attachment, the combination of the housing, the piece M³, extending inward from the front wall of the housing, levers M, pivoted to and depending from the piece, and the rods T, extending through the piece to engage the levers.

WILLIAM R. EDDINGTON.

In presence of—

ADOLPH MILLER,
OLIN G. REINIGER.