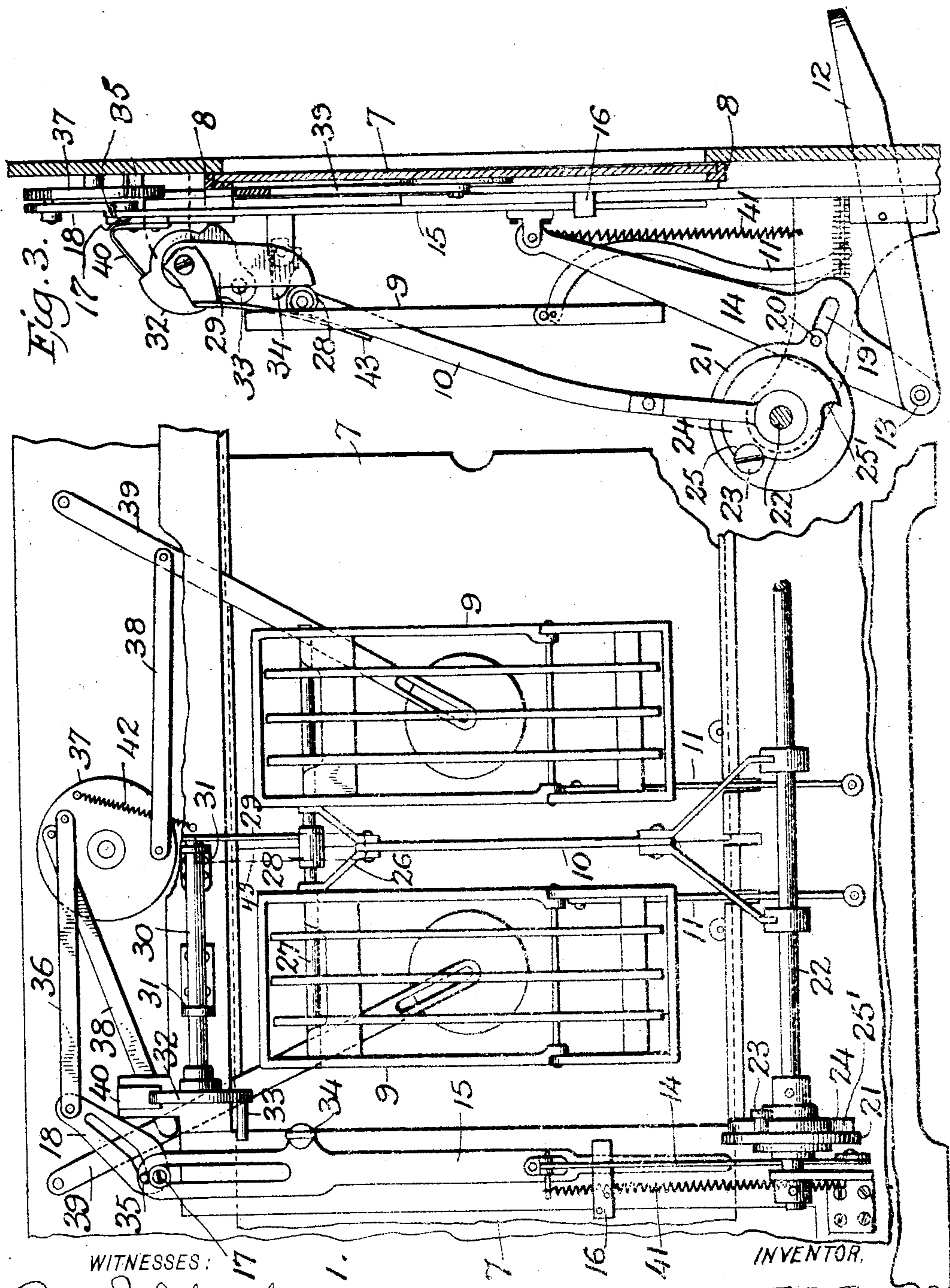


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 PEDAL ATTACHMENT FOR ORGANS, PIANOLAS, &c.  
 APPLICATION FILED MAY 11, 1907.

944,878.

Patented Dec. 28, 1909.

3 SHEETS—SHEET 1.



WITNESSES:  
 James S. Duhamel  
 Wm. Bagges

Fig. 1.

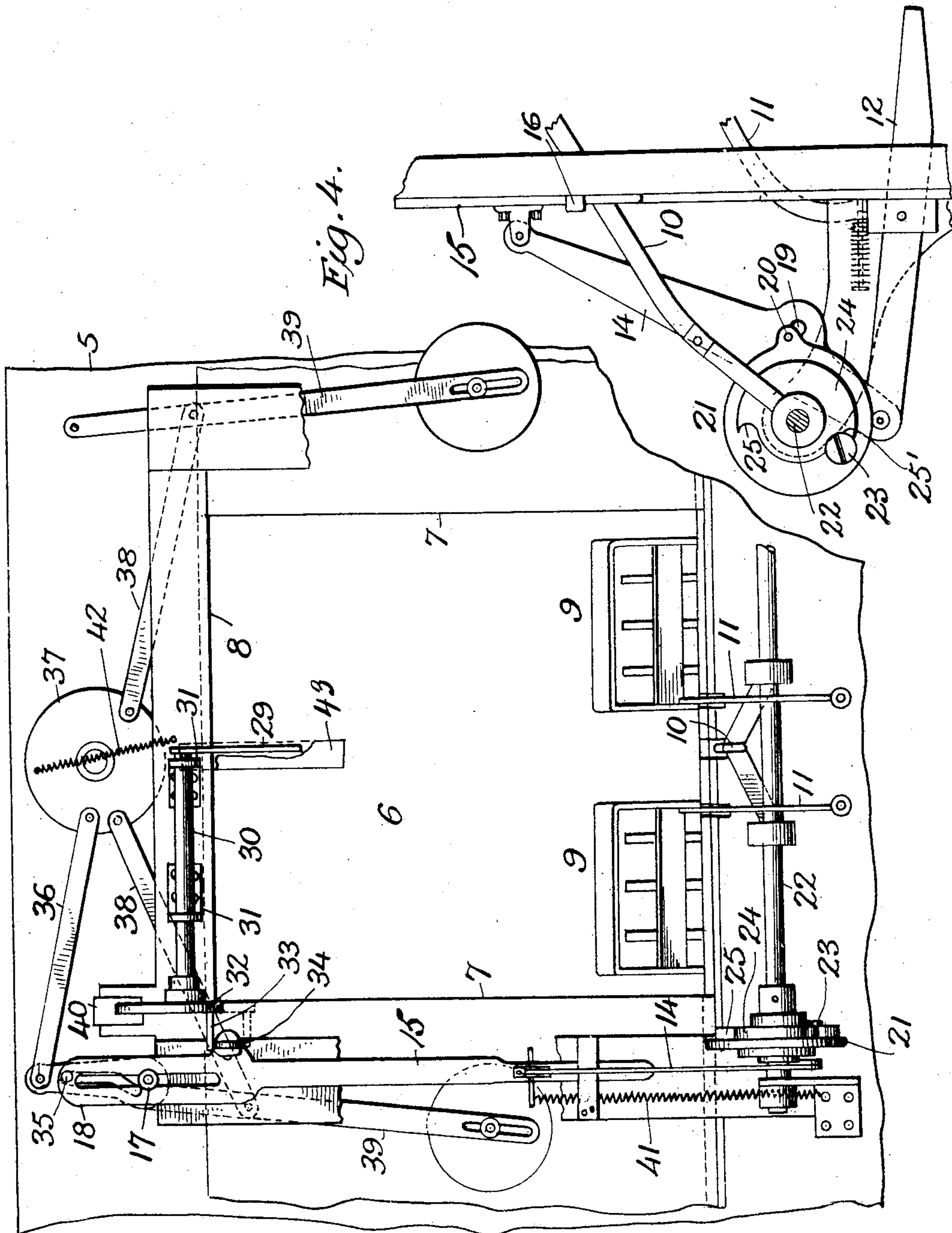
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Fig. 2.

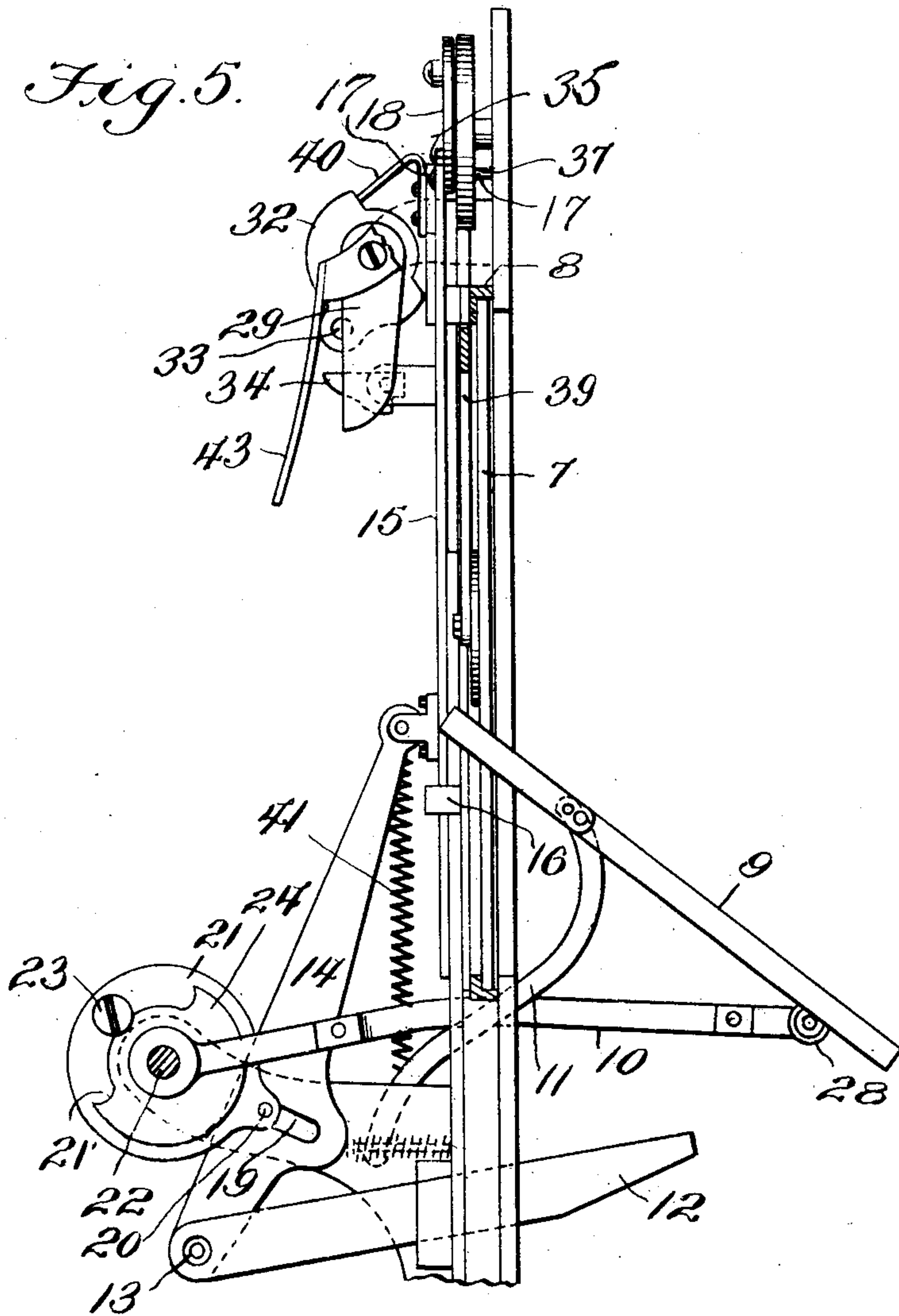
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# UNITED STATES PATENT OFFICE.

CHARLES H. LA DEW, OF NEW YORK, N. Y.

PEDAL ATTACHMENT FOR ORGANS, PIANOLAS, &c.

944,878.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed May 11, 1907. Serial No. 373,192.

*To all whom it may concern:*

Be it known that I, CHARLES H. LA DEW, a citizen of the United States, residing at New York, in the county of New York and State of New York have invented new and useful Improvements in Pedal Attachments for Organs, Pianolas, &c., of which the following is a specification.

My invention relates to pedals for musical and similar instruments and more particularly to pedals which may be folded up within the casing of an organ, piano or similar instrument and are automatically released and drop into position to be used and which may by the same mechanism return to the interior to the casing; the operation of the said mechanism being more fully described in the following specification, set forth in the claims and illustrated in the drawings accompanying this application wherein like reference characters are used to designate the same parts in the several views.

Figure 1 represents a view of the front wall of the case of a piano or organ looking outward. Fig. 2 is a similar view with parts occupying a position in which the pedals may be operated. Fig. 3 is a cross sectional view through the above described wall with the parts occupying the folded positions. Fig. 4 is a side elevation of the parts as they are about to be returned from the open to the closed position. Fig. 5 is a sectional view illustrating the parts in the positions assumed immediately subsequent to the operation of such parts to open the doors and project the pedals.

In the drawings Figs. 1 and 2 are views from the interior of the frame 5 and looking toward the front of the instrument and through the aperture 6 which is closed by sliding doors 7 running in guides 8 at the top and bottom of the opening. The pedals 9 are operatively supported at their front ends by a rod 27 and at their rear ends are connected by means of levers 11 with the feeder bellows.

Pivoted on the inside of the casing of the instrument and extending to the outside is a lever 12 adapted at its forward end to act as a pedal while to its inner end at the point 13 is pivoted a link 14 connecting it with a slide 15 held against the inner framework by means of a cleat 16, and slidably mounted at the upper end on a stud 17 fixed in the frame, which stud forms a pivotal support for the slotted lever 18. The link 14 is pro-

vided with a slot 19 which accommodates a pin 20 of a disk 21 which is loose on a shaft 22 and is provided with a lateral stud 23. The shaft 22 has keyed to it the lever 10 and also a disk 24 with shoulders 25 and 25' to be engaged by the stud 23 and the upper end of the lever 10 is forked as at 26 to carry a rod 27 on which the pedals 9 are hinged and at the point between the branches of the fork 26 is a roller 28 which is engaged by an arm 29 carried at one end of a shaft 30 journaled in brackets 31 above the opening 6. The other end of the shaft 30 carries a disk 32 having a lateral pin 33 in the path of a trip 34 carried by the slide 15.

The slotted lever 18 is turned on its pivot and operated by means of a pin 35 carried by the slide 15 at its upper end and as this slide moves upward the lever 18 is caused to move into an upright position as shown in Fig. 2 and through its link 36 cause the disk 37 to partly rotate and change the position of links 38 which are also secured to levers 39 pivoted to the inside of the casing and secured to the doors causing them to slide when the position of the disk 37 is changed and to open or close according to the position the said disk occupies.

The disk 32 is retained in its normal position by means of a spring 40 and the link 14 is likewise provided with a spring 41 which returns it and the pedal 12 to their normal positions.

The operation of the device is as follows: When it is desired to open the doors of the instrument and to put the pedals in an operative position pressure is put upon the outer end of the lever 12 and its inner end is forced upward carrying with it the link 14 which pushes up the slide 15 which through its pawl 34 forces up the pin 33 partly rotating the shaft 30 and causing the arm 29 to swing inwardly and upwardly thereby forcing the roller 28 and connected parts rearwardly until the end of the arm 29 rides off the roller, the movement of the roller in the rearward direction being meanwhile guided by a spring 43 bearing on said roller in opposition to the contact of arm 29, said spring being of greater length than the arm, so that when the arm rides off the roller said roller will be still within the influence of the spring, whereby when the arm is disengaged from the roller the pedals will be free to gravitate toward the door



opening on the shaft 22 as a support. During this operation the lever 18 has been forced upward and backward and the disk 37 has been turned on its pivot causing the links 38 to throw the levers 39 apart carrying the doors with them and clearing the opening 6 for the passage of the pedals. Simultaneously with these movements the disk 21 is caused to be partly rotated by its pin 20 playing in the slot 19 and the stud 23 travels around until it meets the shoulder 25' which is moving toward it in consequence of the falling of the pedals and their rapid movement is thus arrested. As the pressure on the pedal 12 is gradually released the stud returns to the position shown in Fig. 3 permitting the pedals to gradually fall into their proper position at the front of the instrument. The release of the pedals by disengagement of the arm 29 from the roller 28 is followed by the downward movement of the pedals through the opening provided in the operation of the door. In the descent of the pedals the shoulder 25' of the disk 24 is moving toward the stud 23, and as this stud, in the initial operative movement of the treadle 12, has been projected toward the shoulder 25' and the disk 24, it is obvious that said shoulder and stud will become engaged prior to the limit of forward movement of the pedals. During this movement the operator has maintained pressure upon the treadle 12, and when the engagement of the stud 23 and shoulder 25' is accomplished the operator will gradually relieve the treadle 12 of pressure, thereby lowering the pedals 9 to operative position in a manner to avoid jar or possible breakage of the parts.

While I have not shown any connections between the pedals 9 and the mechanism of the piano or organ they are intended to operate it is obvious that any well known connection may be employed and attached thereto, it is also obvious that various modifications may be adopted in the construction of the device without departing from the essential features above described and shown in the drawings.

Fig. 4 shows the foot lever in the act of returning the pedals to the interior of the casing and it will be seen that upon the depression of the foot lever 12 the disk 21 is thrown around so that the stud 23 comes in contact with the shoulder 25' forcing around the disk 24 with the shaft 22 and the lever 10 which carries the pedals. When the lever 12 is depressed sufficiently the pedals are carried into position shown in Fig. 3, the roller 28 passing behind the pawl 29 which by virtue of the engagement beyond spring 40 with the disk 32 serves to secure the pedals against independent or operative forward movement, and when the lever 12 is released the parts return to the position

shown in Fig. 3 and the doors are closed by the action of the spring 42 which partly rotates the disk 37 and causes the levers 39 to act.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described the combination with movable doors, of pedals within the doors arranged for gravital movement, means for securing the pedals against such movement, and means for simultaneously opening the doors and releasing the pedals for gravital movement.

2. In a device of the character described the combination with doors adapted to open, of pedals arranged for gravital movement through the aperture closed by the doors, means for holding the pedals against such movement, means for controlling the doors, and means operative beyond the doors for actuating the door controlling means and the pedal holding means to release the pedals for gravital movement toward an operative position.

3. In a device of the character described the combination with movable doors, of pedals adapted for gravital movement through the aperture closed by the doors, means for controlling the doors, means for holding the pedals against gravital movement, and a foot lever operative beyond the doors for actuating the door controlling means and the pedal holding means to open the doors and release the pedals for gravital movement through the aperture provided by the door.

4. In a device of the character described the combination with doors, of pedals movably mounted in rear of the doors and arranged for gravital action, means for holding the pedals against gravital movement, a pivotally mounted member, a slide having connection with the doors, means whereby movement of the slide will release the pedal holding means, and a connection between the member and the slide.

5. In a device of the character described the combination with doors, of pedals movably mounted in rear of said doors, means for holding the pedals against gravital movement, a member, a slide connected with said member, lever connections intermediate the slide and doors, and means carried by the slide to operate the pedal holding means to release the pedals during the movement of the slide in one direction.

6. In a device of the character described, the combination with a casing, pedals pivoted within the casing, of doors covering the aperture in the casing, a lever projecting through an opening in the casing, a slide operated by the lever, levers adapted to open the doors, means on the slide operating the levers for opening the doors, a shaft



having means to normally engage and prevent movement of the pedals in one direction, and means carried by the slide for operating the shaft to release the pedals.

5 7. In a device of the character described, the combination with a casing having an aperture in its front, one or more doors covering the aperture, one or more levers connected with the doors and adapted to  
10 open them, pedals adapted to fold within the casing and back of the doors, means for holding the pedals against movement through the aperture, means adapted in operation to release the pedals for outward  
15 movement when the doors are open, a lever at the front of the casing and means connecting the lever with the pedal releasing means and the levers of the doors.

20 8. In a device of the character described, the combination with a casing having an aperture, of one or more doors adapted to close the aperture, levers pivoted to the casing and adapted to open the doors, a lever  
25 at the front of the casing, means connecting the same with the opening levers, pedals adapted to fold within the doors when they are closed, means for holding the pedals against movement through the aperture,  
30 means arranged to release the pedals for outward movement when the doors are open, and means connected with the lever at the front of the casing for operating the pedal releasing means.

35 9. In a device of the character described, the combination with a casing formed with an aperture, doors adapted to slide in the front of the casing and cover the aperture therein, of pedals pivoted within the doors,  
40 a lever at the front of the casing, a shaft controlling the pedals within the casing and adapted to be turned by the lever, means connecting the lever with the shaft, levers pivoted to the case and adapted to slide the doors, a slide operating the latter levers, and  
45 means connected with the lever on the outside of the case for operating the slide.

50 10. In a device of the character described, the combination with a casing formed with an aperture, sliding doors for said aperture, of pedals adapted to fold within the doors,  
means for locking the pedals when they are folded within the doors, means for unlocking the pedals, an arm carrying the pedals and adapted to move them through the aperture,  
55 levers adapted to open the doors and means for simultaneously opening the doors and operating the arm.

60 11. In a device of the character described, the combination with a casing having an aperture, of doors adapted to close the aperture, levers adapted to open the doors, pedals adapted to fold within the casing, means for locking the pedals therein, means for simultaneously opening the doors and releasing  
65 the pedals, means for returning the pedals to

their position within the casing and at the same time returning the doors to their closed position.

12. In a device of the character described, the combination with sliding doors, of a shaft within the doors, levers carrying the pedals and secured to the shaft, a disk with shoulders secured to the shaft, a disk loose on the shaft and having a stud for engaging the shoulders and a pin, a lever extending through the front of the casing, a link connected with the lever and operating the pin on the loose disk, a slide operated by the link, a lever operated by the upper end of the slide, a disk connected with the said lever, levers adapted to slide the doors, links connecting the levers with the disk and means operated by the slide for locking and unlocking the pedals.

13. In a device of the character described, the combination with movable doors, of pedals within the doors, and means without the doors for simultaneously opening them and releasing the pedals so that they may drop through the aperture and returning the pedals to their position within the doors and closing the latter.

14. In a device of the character described, the combination with doors adapted to open, of pedals adapted to swing behind the closed doors, and means on the outside of the doors adapted to open the same and release the pedals so that they will fall into an operative position and to return them within the doors and close the latter.

15. In a device of the character described the combination with doors adapted to open, of pedals arranged for gravital movement toward the doors, means for holding the pedals against such gravital movement, means for controlling the doors, a lever on the front of the device, and means connecting the lever with the door controlling means and with the pedal holding means, whereby in the operation of the lever the doors may be opened and the pedals freed for gravital movement toward said doors.

16. In an organ, operating pedals arranged for gravital action, doors beyond which said pedals are normally housed, a pedal attachment including means for holding the pedals against gravital action, and a single means adapted in operation to actuate the doors and simultaneously operate the pedal holding means to release the pedals for gravital action through the opening controlled by the doors.

17. In a musical instrument, a casing formed with an aperture, doors closing the aperture, pedals mounted for gravital movement within the casing, a pedal attachment comprising means for normally holding the pedals against gravitation to operative position, and a single operative means and connections arranged to actuate the doors and

operate the pedal holding means to release the pedals.

18. A musical instrument having a casing formed with an aperture, doors closing the  
5 aperture, pedals adapted to be normally housed within the aperture, means for normally supporting the pedals against gravitation to operative position, means connecting the doors and acting to move the same,  
10 a single means, and connections between said single means and the door connecting means

and pedal supporting means, whereby said single means is adapted for simultaneously actuating the door connecting means and the pedal supporting means.

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

CHARLES H. LA DEW.

Witnesses:

K. ALLEN,  
AIMEE BROWN.