(No Model.)

W. H. YOUNG.

HOISTING MECHANISM FOR PIANOS, &c.

No. 291,122. Patented Jan. 1, 1884.

Fig. 2

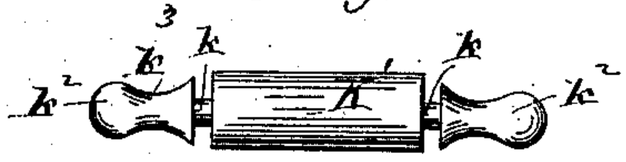


Fig. 1.

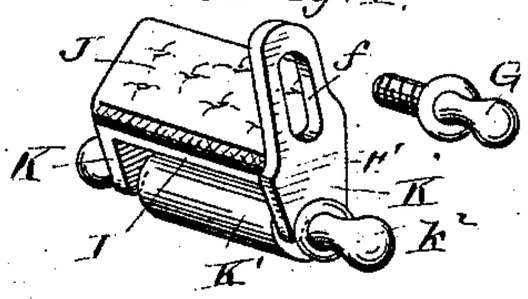


Fig. 1

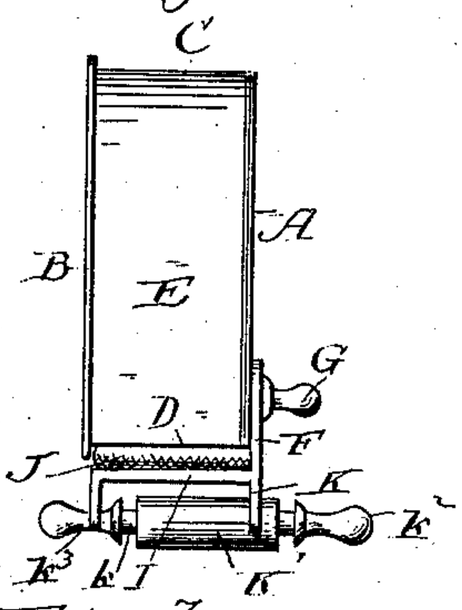


Fig. 7.

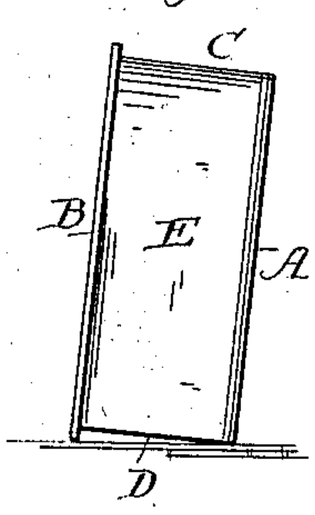
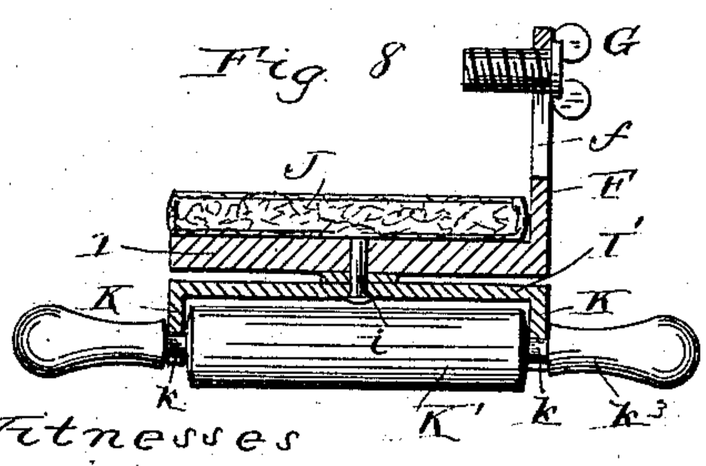


Fig. 8



Witnesses

N. P. Law

A. W. Simmons

Fig. 3

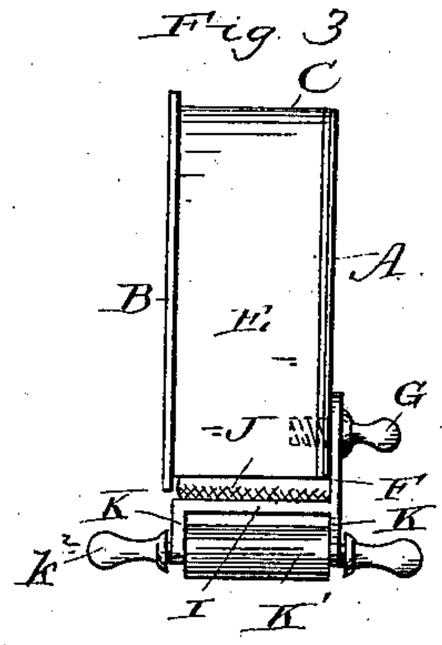


Fig. 5

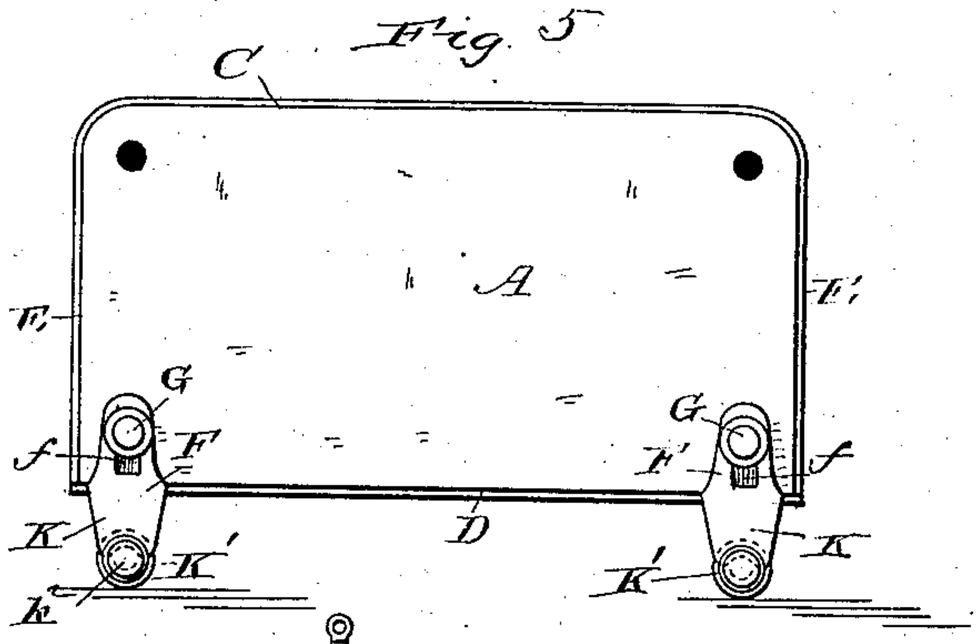


Fig. 6

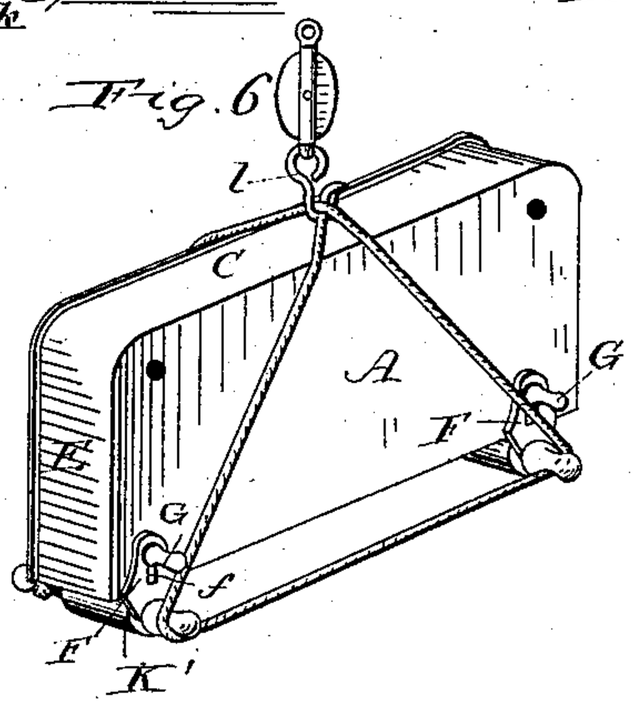
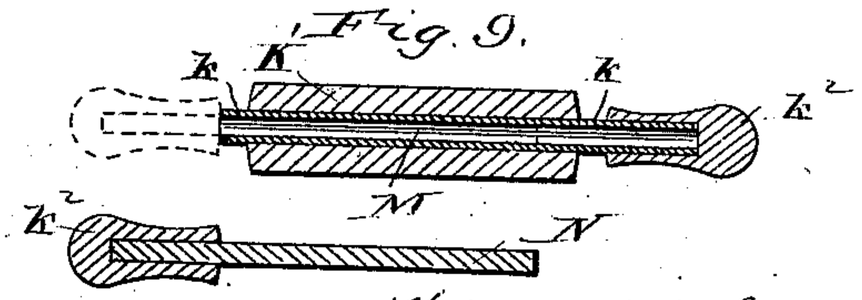


Fig. 9.



Inventor William H. Young

by Doubleday & Bliss attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. YOUNG, OF WILMINGTON, DELAWARE.

HOISTING MECHANISM FOR PIANOS, &c.

SPECIFICATION forming part of Letters Patent No. 291,122, dated January 1, 1884.

Application filed August 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY YOUNG, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Hoisting Mechanism and Carriers for Pianos, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 shows my improved piano-support in perspective. Fig. 2 is a view of the roller detached. Fig. 3 is an end view of a piano having the device connected thereto. Fig. 4 is a similar view, the roller being shown in the position occupied when turning a corner. Fig. 5 is a view of the bottom of the piano when supported upon two rollers. Fig. 6 shows in perspective the manner of using the device when a piano is being hoisted by ropes R. Fig. 7 shows a piano in the position occupied by it while being transported after the manner heretofore followed. Fig. 8 is a sectional view of the modified form of the roller-support, and Fig. 9 shows a modified form of the roller in section and also a section of a detachable handle for the roller.

In the drawings, A represents the bottom of an ordinary square piano; B, the top or cover; C, the front side; D, the back, and E E the ends.

My improved device for supporting a piano while being moved is constructed with a plate adapted to be secured to the bottom A of the piano, a plate carried thereby adapted to lie by the side of one of the edges of the piano, offsets or projections adapted to carry supporting-rollers.

In the construction shown, F represents the plate which is secured to the bottom, it having an aperture preferably in the form of elongated slot *f*, through which can pass the screw G, which secures the support in place. The screw G may be fastened directly in the apertures in the bottom of the piano, as ordinarily constructed, for receiving the upper ends of the legs.

I represents a plate which may be cast integrally with the part F, or, if the device is made of wood, it may be rigidly secured thereto. It is arranged to lie substantially parallel to the edge D or C of the piano, and to support a pad, J, upon which the piano rests. This latter may be made of any material suitable for preventing the piano from being marred or injured. From the part I there project outwardly or downwardly two offsets or arms, K K, which provide supports or bearings for a roller. When the device is made of metal, these may be also formed integrally with the other parts above described, the distance between the two offsets or ears being somewhat less than the thickness of the ordinary piano.

K′ represents a roller, which is detachably mounted in the offsets or arms above described. Preferably the mounting is effected by forming curved recesses in the lower ends of the arms or offsets, into which fit reduced portions of the roller, as at *k k*. The shoulders by the sides of the reduced portions operate to prevent displacement of the roller. The part *k′* of the roller is of such diameter as to have a portion thereof always projecting farther from the piano than the offsets or arms, so that when the piano is raised upon the rollers there shall be a rolling-surface provided, and when it is desired to move the piano over a floor or other smooth surface it can be done by allowing it to rest upon the rollers and pushing it along thereon. The rollers have handles k^2 projecting outwardly from the parts *k*, these portions being reduced, as at k^3, to form grooves or recesses adapted to have ropes secured thereto when the piano is to be raised or lowered by means of block and tackle, or similar devices. When it is to be thus manipulated, the rope can be arranged as shown in Fig. 6—that is to say, one end thereof may be passed around the two projecting handle portions k^2, on one side of the piano, and the other end can be passed around the handles on the other side, and the two ends of the rope can be joined to the central part, or can be united together. Then the hook *l* of the hoisting apparatus can be secured either to the central part of the rope or to the two strands when the ends are fastened together. When one of the sides (either the bottom or the top) is brought near to a wall, or is otherwise so situated as to make it impossible to carry the piano while the handle portions k^2 project as far as they ordinarily will project when the recess portions *c* are in the sockets of the offsets, the rollers can be

moved longitudinally sufficiently to permit a ready passage, as the recess part k^3 is of such character as to also engage readily with one of the downwardly-projecting offsets, as shown in Fig. 4.

In Fig. 7 I have illustrated the position occupied by a piano when one of its edges is resting on a floor or on the bottom of a wagon during transportation. It will be seen that the pressure, caused by the weight of the piano, is brought to bear upon the top or cover B, inasmuch as this cover (as pianos are ordinarily constructed) projects somewhat over the edge or side. The tops are fastened to the bodies or cases by a few small screws, which are made to take half of the weight of the instrument when it is situated as above described. During transportation in a wagon or other vehicle the jars imparted to the top loosen the screws of the hinges of the top and destroy the fit of this part and of the case. Moreover, these instruments are, as is well-known, expensively and handsomely finished on all sides, and especially upon the top, and the finish, as is well known, is being constantly marred when the instruments are being moved.

I am aware of the fact that small padded trucks have been heretofore used, and also that handles have been screwed into the leg-holes in the bottom of pianos, and I do not claim such devices as my invention. In my case the whole device is firmly secured to the piano, and there is no trouble or delay and no necessity of any additional help at intervals, as is the case when use is made of the trucks above alluded to. The handles heretofore used, which have been screwed into the leg-holes in the bottom of the piano, have furnished a supporting means upon one side only, and have therefore not been capable of the uses to which my improvements can be put.

Although I have shown and described my invention as being especially applicable to the hoisting and carrying of pianos, yet it will be readily seen that either in the shape shown, or by being immaterially modified, it can be readily applied to the hoisting and carrying of other articles of furniture—such as book-cases, wardrobes, beds, &c.—and I wish it to be understood that I reserve to myself the right to apply the device to such other articles.

In Fig. 8 I have shown a modification of the device. In this case I′ represents a supplemental plate or bar, arranged below the plate I, and joined thereto by means of a pivot or swivel-pin, *i*. The plate I′ in this case carries the downwardly-projecting offset or arms K K, which rest upon the roller. By providing the device thus with a swivel for the roller-bearings proper, one or more of the rollers can be turned to a line inclined to the others, so that the piano can be held perfectly stationary in a wagon on an inclined surface, as will sometimes be necessary. Another modified feature is shown, also, in said figure and in Fig. 9. This consists in forming the roller in two parts, one being on the outside of the roller proper, and the other being a hollow tubular shaft or axis, M. By constructing the roller in this way, I can make it light by having the greater part of it of wood, and at the same time can provide it with strong bearings, the latter being formed by the metallic axial parts. Upon the ends of the part M can be fastened the handles k^2 in this case, or, preferably, one of the handles can be left free and adapted to be secured to the roller by means of a rod, N, having such a diameter that it can be readily inserted into the axial part M, as shown in Fig. 9. When so constructed, one of the handles can be removed, and therefore the piano can be moved in a narrower space, and it can be so guided as to avoid obstructions or the corners of a wall, &c.

The axial part M can be made of ordinary gas-pipe tubing, that being obtainable at small cost, and being at the same time sufficiently strong and durable.

What I claim is—

1. A device for supporting pianos having a pad, a support for the pad, which holds it independently of the top or cover of the piano, and means for securing the pad-support to the bottom of the piano, substantially as set forth.

2. In a support for a piano during transportation, a slotted plate adapted to be secured to the bottom of the piano, a plate carried thereby parallel with the edge of the piano, offsets or arms projecting downwardly from said plate, and a roller mounted therein, substantially as set forth.

3. In a device for supporting a piano during transportation, a plate adapted to be secured to the bottom of a piano, a roller mounted in bearings carried by said plate, and a pad or cushion interposed between the piano and the roller, substantially as set forth.

4. The combination of the roller, the bearings therefor, the bearing-support arranged to be rocked or turned relatively to the piano, and the devices for clamping the bearing-supports to the edge of the piano, substantially as set forth.

5. The combination of the roller, the bearings therefor, the cushion-support, the support for the roller-bearings connected by a swivel or pivot to the cushion-support, and means for clamping the cushion-support against the edge of the piano, substantially as set forth.

6. The combination of the roller, the bearings for the roller situated outside of the ends thereof, and the handles projecting outwardly from said bearings, substantially as set forth.

7. The combination of the roller, the bearings therefor situated outside of the ends of the roller, means for securing the roller to the edge of the piano, and a detachable handle adapted to be secured to the roller, substantially as set forth.

8. The combination of the wooden roller, the bearings therefor, the devices for securing

the roller-bearings to the edge of the piano, and the metallic axle for the roller projecting therefrom at the ends sufficiently to form journals for the bearings, substantially as set forth.

9. The combination of the roller, the bearings therefor, devices for securing the roller-bearings to the piano, the aperture in the roller, and the detachable handle adapted to be connected with the roller by inserting it or a portion thereof into the aperture of the roller, substantially as set forth.

10. The combination of the roller, the tubular axle or journal-piece inserted into the roller, and a detachable handle having a spindle or arm adapted to be inserted into said tubular axle or journal-piece, substantially as set forth.

11. The combination of the roller-bearings, the support for said bearings, the means for clamping said bearing-support to the edge of the piano, and a detachable roller, substantially as set forth.

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

WM. H. YOUNG.

Witnesses:

BENJ. BENSON,

OWEN C. CROW.