C. S. CALHOUN.

HAND TRUCK.

APPLICATION FILED DEC. 1, 1911.

1,139,636. Patented May 18, 1915.

Fig. 1.

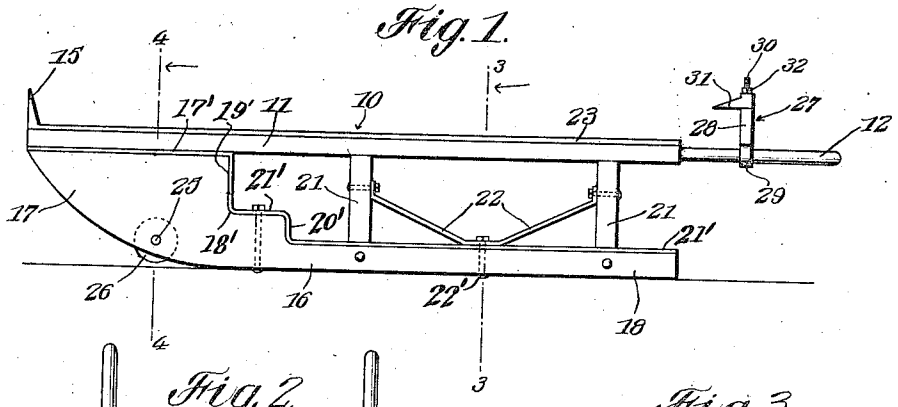


Fig. 2.

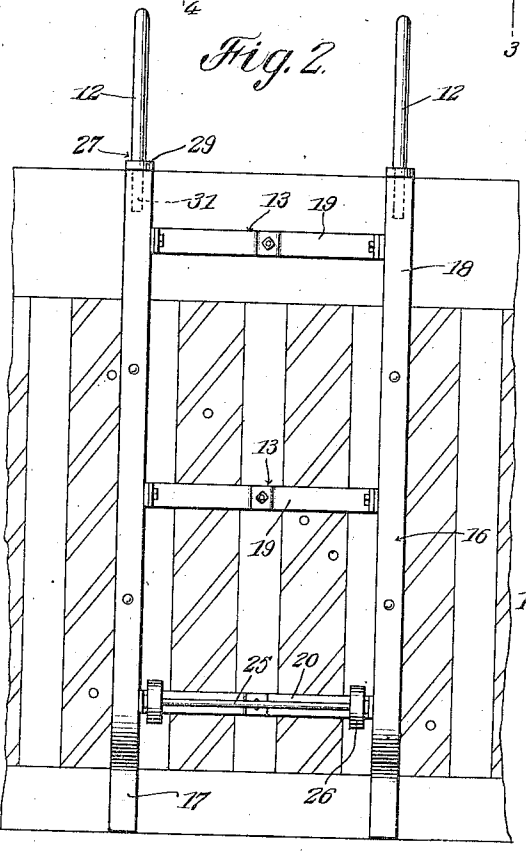


Fig. 3.

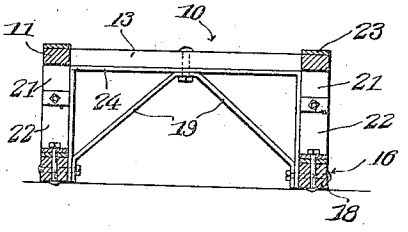
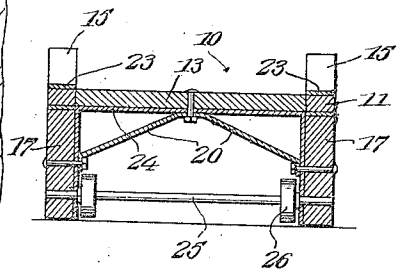


Fig. 4.



Witnesses

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HAND-TRUCK.

1,139,636. Specification of Letters Patent. Patented May 18, 1915.

Application filed December 1, 1911. Serial No. 663,330.

To all whom it may concern:

Be it known that I, CURTIS S. CALHOUN, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented new and useful Improvements in Hand-Trucks, of which the following is a specification.

An object of the invention is to provide a hand truck, particularly adaptable for use in connection with pianos, for transporting the same from one place to another.

The invention embodies among other features a manually operative device which is raised to a vertical position against the rear of the piano for the purpose of connecting the piano thereto and the rear part of the device is then lowered in such a manner that the piano will be carried with the device, the said device being then capable of being pushed for the purpose of conveying the piano from one place to another.

For the purpose mentioned, use is made of a frame embodying connected runners, suitable rollers being journaled on the said runners and the said frame being provided with suitable handles, the rear portions of the said runners being adapted to contact with the floor when the rollers are spaced therefrom and the said rollers being adapted to contact with the floor when the rear portions of the said runners are raised therefrom.

In the further disclosure of the invention, reference is to be had to the accompanying drawings constituting a part of the specification, in which similar characters of reference denote corresponding parts in all the views, and in which

Figure 1 is a side elevation of my device, showing the same in lowered or transporting position. Fig. 2 is a rear elevation of my device showing the same in raised position with a piano mounted thereon. Fig. 3 is a vertical transverse sectional view taken on the line 3—3 in Fig. 1. Fig. 4 is a vertical transverse sectional view taken on the line 4—4 in Fig. 1.

Referring more particularly to the views, I provide a frame 10 consisting of horizontally extending members 11, constituting a bed and terminating at their rear ends in handles 12, the said members being connected by cross pieces 13 and having their front ends provided with upwardly extending gripping members 15. Secured to the sides of the frame and depending therefrom are runners 16 comprising segmentally shaped heads 17, arranged beneath the forward ends of the members 11, the rear ends 18 of the said runners being reduced and having secured thereto suitable brace rods 19 extending upwardly and connected to one of the cross pieces 13. In a similar manner brace rods 20 are secured to the inner sides of the heads 17 and extend upwardly for rigid connection with one of the cross pieces 13.

The segmental head 17 which is formed on the forward end of the main body portion of the runner is provided with a straight horizontally disposed supporting surface 17′, the latter being disposed above and in a parallel plane with the upper longitudinal edge of the reduced rear end 18 of the runner. The said head 17 is gradually stepped down, as at 18′ to provide the reduced rear ends 18 of the runners. The stepped portion 18′ includes vertically disposed shoulders 19′ and 20′, connected together by the horizontally disposed connecting portion 21′ and it will be observed that the vertical shoulder 19′ is of greater length than the shoulder 20′ and extends into the upper surface of the reduced rear ends of the runners. The runner has secured thereto a reinforcing strip 21′ and the latter is bent to the configuration above described and secured to the top longitudinal edge of the runner, and its segmental head by means of the fastening strip serving as the reinforcing element more particularly for the vertical shoulders of the stepped portion 18′. It will be observed that when the truck is being used and its rollers 26 are thrown into engagement with the ground, the maximum weight will be thrown on the solid segmental head portion 17 and by providing the head with the stepped portion 18′, provides a truck adapted to be subjected to such strains and further provides a truck of a minimum weight and the employment of the reinforcing strip reinforces the reduced portion of the runner and provides an efficient truck 21 secured thereto and extending vertically for connection with the longitudinally extending members 11 and secured to the rear ends 18 of the runners 16 are brace rods 22 having their ends rigidly connected to the uprights 21. Suitable bands 23 are secured to the members 11 and the mentioned bands together with the members 11 and the cross

pieces 13, constitute the bed of the device as has been mentioned heretofore. Similar bands 24 are secured to the runners 16 and to the under side of the cross pieces for strengthening the entire structure. Journaled in the heads 17 of the runners 16 is a horizontally extending shaft 25 having rollers 26 keyed thereto, the said rollers being adapted to be spaced from the floor or ground when the rear ends 18 of the runners contact with the floor, as shown in Figs. 1 and 4.

In the use of my device when it is desired to transport a piano from one place to another, the handles 12 are grasped and raised upwardly, thus swinging my device into vertical position so that the forward end thereof will rest upon the floor as shown in Fig. 2, the gripping flanges 15 being adapted to pass beneath and engage the rear part of the frame of the piano so that the rear part of the piano will lie upon the bed of the truck. Now by pulling downwardly on the handles 12 the device will be swung from the vertical or receiving position to the horizontal or transporting position, it being readily understood that when the device is not lowered sufficiently to cause the rear ends of the runners to engage the floor, the weight of the truck together with the weight of the piano will be supported by the rollers 26 and the truck will at this time be in a position so that by exerting a forward pressure on the handles 12 the truck can be operated over the floor to transport the piano to the desired place. As mentioned heretofore, when the truck is lowered sufficiently so that the rear ends of the runners will contact with the floor, the particular shape of the runners 16 and the particular manner in which the rollers 26 are mounted, will cause the rollers 26 to be raised from the floor, thus preventing any slipping or sliding of the truck on the rollers, when the rear ends of the runners are contacting with the floor.

In order to more securely retain the piano in engagement with the truck I provide retaining members 27 adapted for slidable engagement with the handles 12, the said retaining members each consisting of a shank 28, provided with an enlarged portion 29 having an opening therein through which the handle is extended, the upper end of the shank 28 terminating in a screw 30 adapted to receive a gripping flange 31, a suitable nut 32 being threadedly engaged with the screw 30 to rigidly retain and adjust the gripping flange 31 relatively to the screw 30 and the shank 28, the mentioned gripping flanges 31 of the retaining members 27, being adapted to engage the piano adjacent the upper lid or cover thereof, which cover is preferably thrown into open position when the piano is mounted on the truck so that the gripping flanges will not mar or mutilate the veneer of the instrument and will engage the instrument adjacent the tuning pins, the said tuning pins being usually arranged immediately adjacent the cover of the piano.

Although I have described my truck as used in connection with pianos, for transporting the same from one place to another, one of the principal features of the truck when used in connection with pianos is, that the piano when mounted on the truck can be swung into horizontal position thus exposing the under side of the piano so that various repairs can be made thereon and the casters can be easily and quickly replaced by new ones or adjusted so that the piano will properly repose upon the floor when the same is used in playing position.

I claim:—

A truck comprising a pair of runners each having segmentally-shaped solid heads gradually stepped down to provide reduced rear ends of substantially rectangular configuration, a bed secured at its forward end to the upper straight edge of each of the heads, cross pieces securing said beds together, a pair of uprights secured between the upper and lower longitudinal edges of the reduced ends and bed respectively, the gradually stepped portion of each head presenting a plurality of vertical shoulders of varying lengths and a horizontally connecting shoulder, a reinforcing strip secured to the upper longitudinal edge of the runners throughout its entire length, a continuous reinforcing band secured to the bottom surfaces of the cross pieces and the opposed surfaces of said uprights, a brace rod connected to the medial and terminal portions of the said band, and another brace secured to the reinforcing strip and the longitudinally alined opposed surfaces of said uprights.

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

CURTIS S. CALHOUN.

Witnesses:
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E. EDWARDSTON, Jr.