

E. S. Clapp,

Trunk,

No. 44, 936,

Patented Nov. 8, 1864.

Fig. 1.

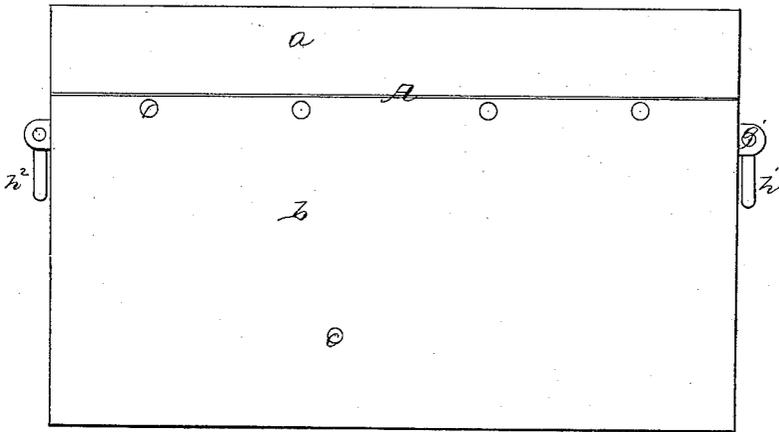
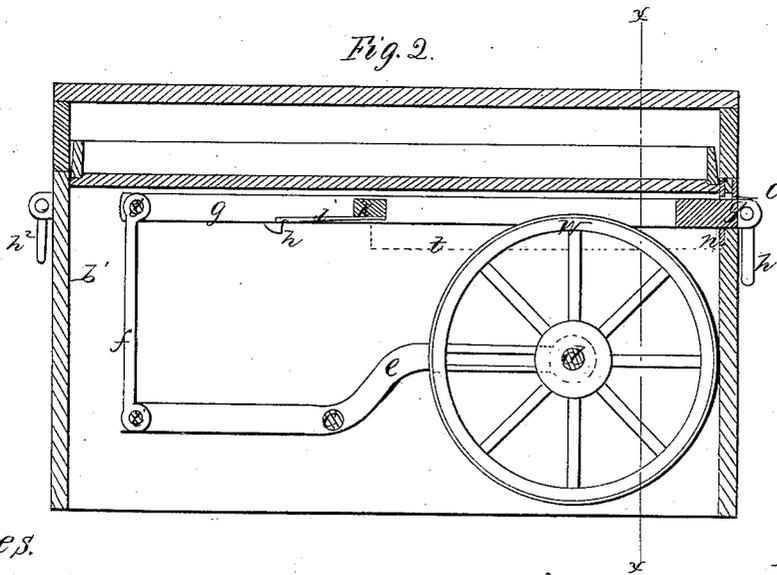


Fig. 2.



Witnesses.

L. J. Tappan
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Inventor.

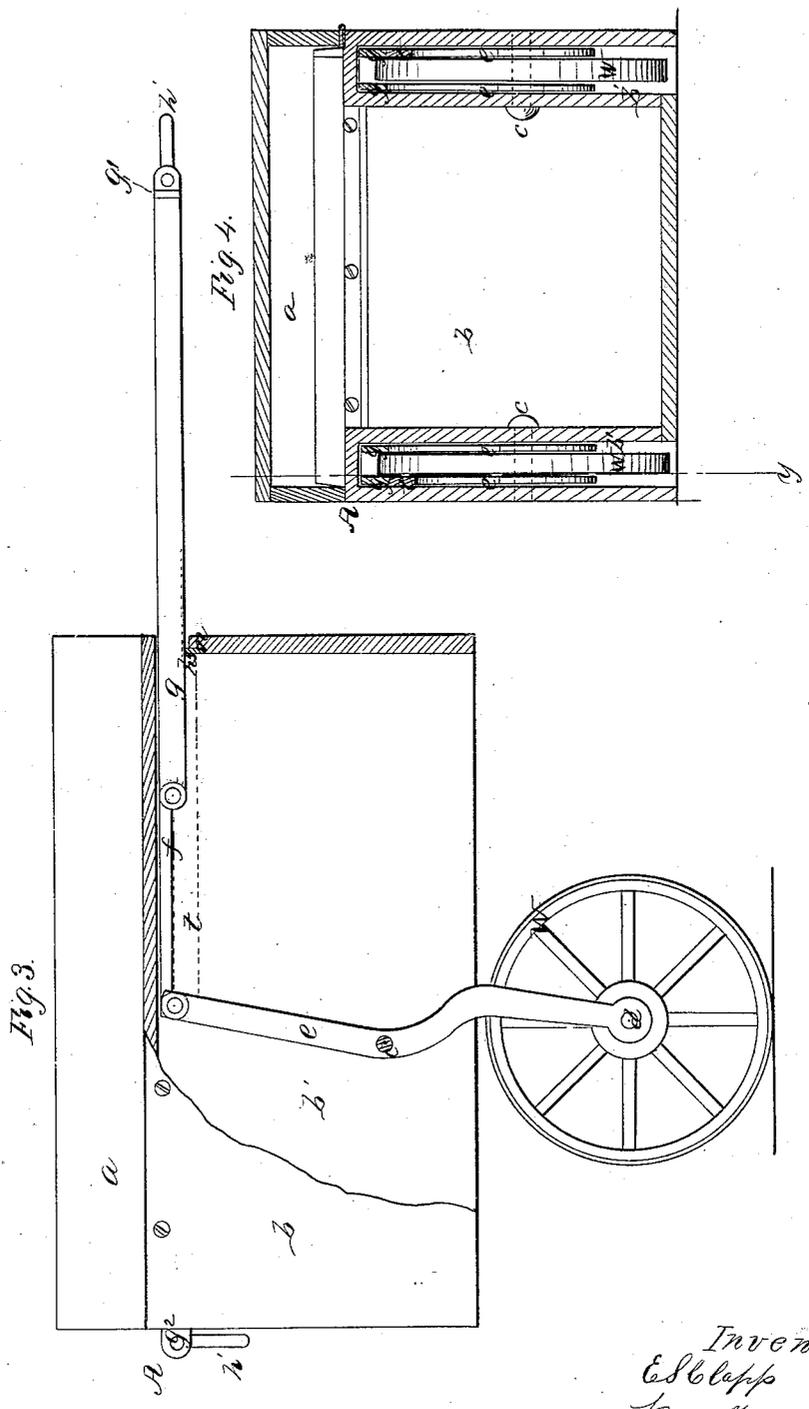
E. S. Clapp
per Messrs
Morris

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Witnesses.
 C. L. Tolff
 Henry Morris

Inventor.
 E. S. Clapp
 per Wm. M. G.
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UNITED STATES PATENT OFFICE.

E. S. CLAPP, OF MONTAGUE, MASSACHUSETTS.

IMPROVEMENT IN TRUNKS.

Specification forming part of Letters Patent No. 44,936, dated November 8, 1864.

To all whom it may concern :

Be it known that I, E. S. CLAPP, of Montague, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Trunks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a trunk which contains my improvements. Fig. 2 is a vertical longitudinal section on the line *y* of Fig. 4. Fig. 3 is a sectional view on the same line, showing the position of the part when the trunk is ready to be moved. Fig. 4 is a cross-section taken on the vertical line *x* of Fig. 2.

Similar letters of reference indicate corresponding parts.

This invention consists in so constructing an ordinary trunk as to make it capable of being transported upon self-contained wheels, which are concealed when the trunk is at rest, and projected from its sides when it is about to be moved, so that it may be wheeled after the manner of a cart to the desired point, thereby saving the labor of lifting it and the expense of portage.

A is the trunk, composed a hinged top, *a*, and a body, *b*, the style of which may be varied according to the prevailing mode or the taste of the maker. It has handles at each end, the handle *h*² being fixed to the wall of the trunk in the common manner. A narrow rectangular cavity, *b*, is made along its front and back sides, extending the whole length and height of the body, and open at the bottom. (See Fig. 2, 3, and 4.) The width of these cavities is to be only sufficient to contain the wheels and the devices connected thereto. The wheels *W* are respectively embraced by a bifurcated arm, *e*, within whose forks they are held by means of axle-pins *d*. The other ends of the arms are secured by free joints to links *f*. The arms *e* vibrate upon threaded bolts *c*, screwed into the double walls of the sides of the trunk from the interior. These bolts *c* carry metallic collars or rings of a width sufficient to keep the forks of the arms apart far enough to permit the wheel to revolve between them. The links *f* are of a width about equal to the wheels,

and are secured within the opposite ends of the arms by joint-pins *i*. The other ends of the links are also secured by joint pins *i*, between the bifurcated ends by sliding arms *g*, which slide upon ways *t*, secured against the outer walls of the cavities *b'*. The arms *g* reach from the right-hand end of the trunk to a point vertically above the extreme ends of the vibrating arms *e*, when the latter are in the position shown in Fig. 2, at which time that portion of the latter which lies to the left of the vibrating center *c* is nearly parallel with the arms *g* and the links *f* consequently then stand in perpendicular positions. The outer ends of the arms *g* protrude through the end walls of the body of the trunk at openings *o*, and are connected by a cross-piece or metal bar *g'*, which, when the parts are in the position shown in Fig. 2, lies in a groove cut on the outside of the trunk to receive it, so that it may lie flush therewith. The handle *h* is attached to bosses formed on the bar *g'*. A block, *k*, of metal or wood, is secured between the forks of the arms *g*, about midway of their length, to hold them apart, so that the rims of the wheels may have place between them when they are elevated into their cavities *b'*, and springs *j*, secured to their lower faces, extend backward between the forks or limbs of the arms toward dogs *h* formed on the outer limbs or forks of each arm. The office of the dogs is to limit the extent of the outward movement of the arms *g* by the contact of the dogs with the faces of stay-plates *n*, fastened on the inner and lower edges of the openings *o*, and the office of the springs is to prevent the arms from sliding inward accidentally by falling down and latching against the opposite sides of the stay-plates *n*, when the arms are in the position shown in Fig. 3.

In order to shove in the arms, it is necessary to raise the springs with one's finger, so as to unlock them, when the sliding arms can be pushed inward to the position shown in Fig. 2. That portion of the vibrating arms *e* which lies between the axles of the wheel and the bolts *c* is to be curved, as shown. If a wheel is used of a diameter equal to the height of the cavities *b'*, and the distance of the vibrating centers or bolts *c* from the periphery of the wheels is to be a little greater than the distance between the bolts and the bottom of the trunk, so that when the wheels are projected

they may revolve clear of the trunk. The bolts *e*, moreover, are to be to the left of a vertical line, which would bisect the trunk so that the center of gravity shall be thrown between the bolt *e* and the handle which sustains the trunk.

The arms *g* and *e* may be made of distinct bars joined together at their ends and at the points *c* and *k* in such a way as that their sides shall be separated from each other, as shown in Fig. 4.

The operation of the devices is as follows: When the trunk is to be moved to any point, the sliding bars are drawn out by means of the handle *h'*, thereby causing the arms *e* to revolve about their centers of motion *c* until the dogs *h* come in contact with the stay-plates *n*, at which time the spring-latches *j* fall down before the outer sides of the stay-plates, and the outer branches of the arms *e* rest against the ends of the ways *t*. The wheels are then found to be projected beneath the

trunk ready to convey it to any point. The wheels are to be light, and it will be found that the trunk is materially strengthened by the double walls at its sides.

I claim as new and desire to secure by Letters Patent—

1. The combination of a trunk, or its equivalent, with wheels for transporting it, so arranged as to be concealed within its outside walls when at rest, substantially as described.

2. Constructing trunks for transporting baggage and other goods with cavities to conceal wheels and their necessary connections, which can be projected from and returned within their cavities by means of one of the handles of the trunk, substantially as above described.

E. S. CLAPP.

Witnesses:

ALMON BRAINARD,
C. T. WALCOTT.