

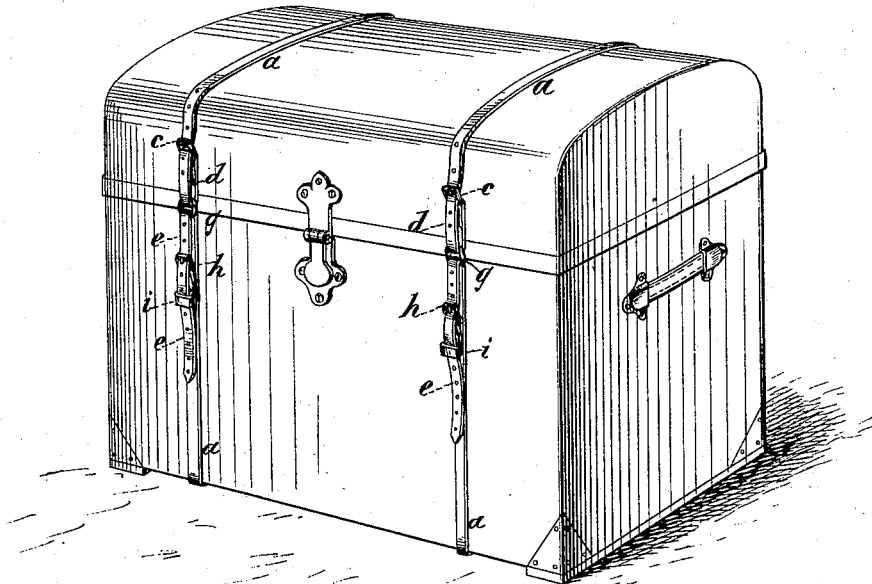
(No Model.)

M. R. DOWLIN.  
TRUNK OR BUNDLE STRAP.

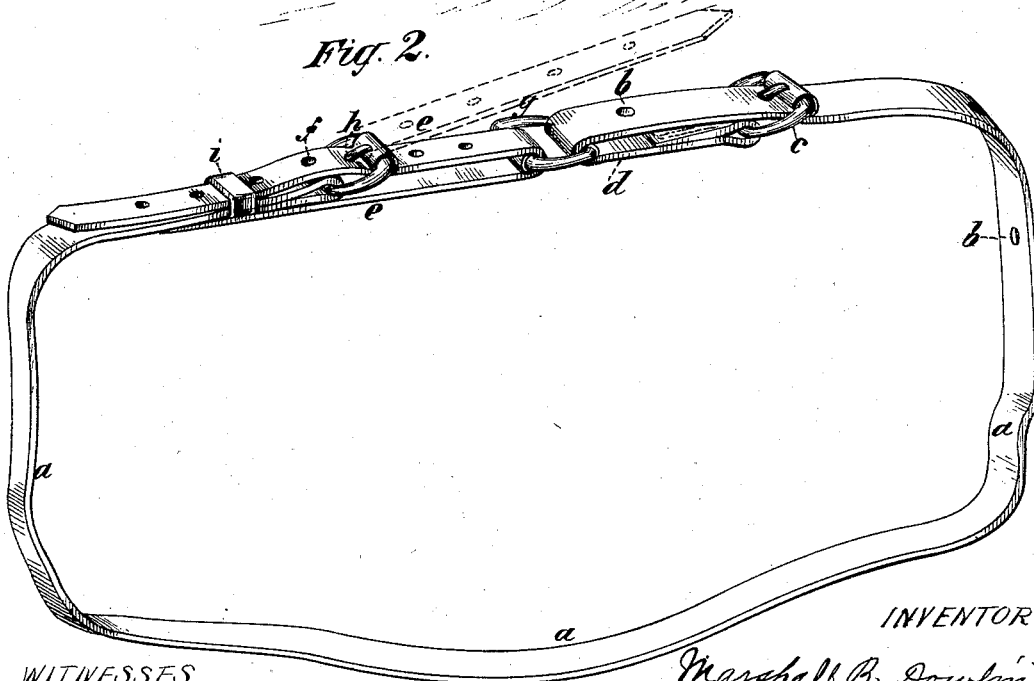
No. 304,917.

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*Fig. 1.*



*Fig. 2.*



WITNESSES  
*John Becker*  
*Jno. E. Kravim*

INVENTOR  
*Marshall R. Dowlin*  
by *Chas. M. Higgins*  
*attorney*

# UNITED STATES PATENT OFFICE.

MARSHALL R. DOWLIN, OF NORTH ADAMS, MASSACHUSETTS.

## TRUNK OR BUNDLE STRAP.

SPECIFICATION forming part of Letters Patent No. 304,917, dated September 9, 1884.

Application filed June 17, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, MARSHALL R. DOWLIN, of North Adams, Berkshire county, Massachusetts, have invented certain new and useful Improvements in Trunk or Bundle Straps, of which the following is a specification.

My invention relates to that class of trunk-straps in which the buckling tongue or billet of the strap passes in one or more returning loops through the eyes or buckles of the strap, on the principle of the compound pulley, so as to obtain a great mechanical advantage or "purchase," which enables the strap to be drawn very tight with comparatively slight exertion.

The aim of my invention is to provide a strap of this kind which, while being equally effective, shall be simpler and less expensive than those heretofore made, and particularly more simple and convenient in the provision for taking up the slack of the strap or adjusting it to a trunk or bundle whose girth is less than the maximum.

To these ends my invention may be briefly stated to consist in a strap having its back end looped into a slip-noose loop, with a buckle on the noose which may be buckled back at different positions on the strap, thus forming an adjustable take-up loop, which enables the strap to be adjusted to any girth, and in the bight of this take-up loop is placed a pulley or roller-eye, while the front end of the strap is provided with a perforated buckling-tongue or short strap, and a buckle at the root of the buckling-tongue, which tongue passes through the roller-eye in the bight of the take-up loop, and returning back upon itself in the form of a pulley-loop passes through the buckle at the root of the tongue, through which buckle the tongue is drawn to tighten the strap, and by which the strap is held at the desired tension, thus forming a very simple adjustable trunk-strap, in which the mechanical advantage in tightening the strap is two to one in favor of the operator, as hereinafter fully set forth.

In the annexed drawings, Figure 1 presents a perspective view of a trunk strapped with my improved straps, and Fig. 2 presents an enlarged perspective view of the strap itself.

Referring first to Fig. 2, *a* indicates the main portion or body of the strap, which I of course prefer to make of strong flexible leather. The

back end of the strap, which is on the right and upper part of Fig. 2, is perforated with a number of buckling-holes, *b b*, at intervals for a considerable distance along the strap, as shown, and on the extremity of this perforated end of the loop is fixed a buckle, *c*, which slips back over the perforated part of the strap, which thus runs through the buckle in the form of a slip-noose, so as to thus form an adjustable take-up loop, *d*, on the back end of the strap, which, as will be readily observed, forms a simple means of taking up the slack of the strap in adjusting it to a trunk which is of less girth than the strap will encircle, as will be easily comprehended. Now, the opposite or "front" end of the strap is terminated with a perforated buckling-tongue or short strap, *e*, which is provided with a number of buckling-holes, *f*, and on the end of the main portion of the strap, at the root of the tongue *e*, is fixed a buckle, *h*. Now, in the bight of the noose or take-up loop *d* is engaged a roller-eye or pulley-eye, *g*, and the tongue *f* on the opposite end of the strap is passed through said eye, and, returning back on itself, passes through the buckle *h*, in which it may be drawn to tighten the strap to the desired tension and then held by the engagement of the tongue of the buckle in the desired hole of the strap *e*, after which the free end of the strap is passed through the usual loop, *i*, to hold it down, as shown in Figs. 1 and 2. It will now be readily seen that the tongue or strap *e*, in passing in a loop through the eye *g* and through the buckle *h*, acts, on the principle of the compound pulley, with a ratio of two to one, and hence the operator, in drawing on the tongue *e*, has a mechanical advantage of two to one in tightening the strap, so that by this means the trunk can be strapped very tightly with an easy exertion, and hence by this expedient ladies or delicate persons are enabled to strap their trunks as firmly as they could be strapped by strong men in the case of the common strap.

In a trunk-strap heretofore made on the compound pulley principle the buckling-tongue was passed in two loops through eyes and buckles, so as to give theoretically a mechanical advantage of four to one; but I prefer the single loop shown, giving a mechanical advantage of two to one, which is practically quite sufficient, and which has the advantage of

much greater simplicity in construction, and obviates the loss from the friction and bending of the leather, which greatly reduces the supposed advantage possessed by a more multiple looping.

It will be seen that my strap is quite simple in its general construction, as it is formed of few parts and they of a character cheaply made and easily put together, and by reason of the take-up loop *d* at the back end of the strap, with the eye *g* in the bight thereof, the strap is very easily adjusted to a trunk of any size, so that all the slack of the strap will be neatly taken up, and hence for this reason the buckling-tongue *e* can be made comparatively short, needing length sufficient only to tighten the strap after its adjustment to the trunk, and these features hence obviate a long length of tongue hanging loose, as is usually the case.

The holes *f* in the tongue *e* are preferably made at very short intervals, giving a fine range of adjustment, while the holes *b* in the take-up end of the strap are made at much longer intervals, as fine stages of adjustment are not here required.

It will be seen by referring to Fig. 2 that the tongue *e* is made from a piece separate from the main strap *a*, but stitched or otherwise secured thereto at the base of the buckle

*h*. This manner of construction I prefer, as I find it best to make the tongue *e* of a thinner, softer, and more flexible quality of leather than the main portion of the strap, so that the tongue is looped, drawn, and buckled in a much more easy manner than if it were stiff. If desired, however, the tongue *e* may be continuous with the main part of the strap *a*.

What I claim is—

1. The strap *a*, having the buckle *c* and take-up loop *d* at the back end thereof, in combination with the eye *g* in the bight of said loop, and the buckle *h*, and perforated buckling-tongue *e*, on the opposite end of the strap, substantially as and for the purpose herein shown and described.

2. The combination, with the strap *a*, having the buckle *c* and take-up loop *d* at one end thereof, of the buckle *h*, fixed at the opposite extremity of the strap, with the tongue *e*, made separate from the strap *a*, and secured thereto near the buckle *h*, and with the eye *g* held in the bight of the loop *d*, substantially as herein shown and described.

MARSHALL R. DOWLIN.

Witnesses:

C. H. INGALLS,  
A. D. CADY.