Oct. 28, 1952 F. J. RYNDERS 2,615,544

UNLOADING DEVICE

Filed March 15, 1950 2 SHEETS—SHEET 1

Fig. 1.

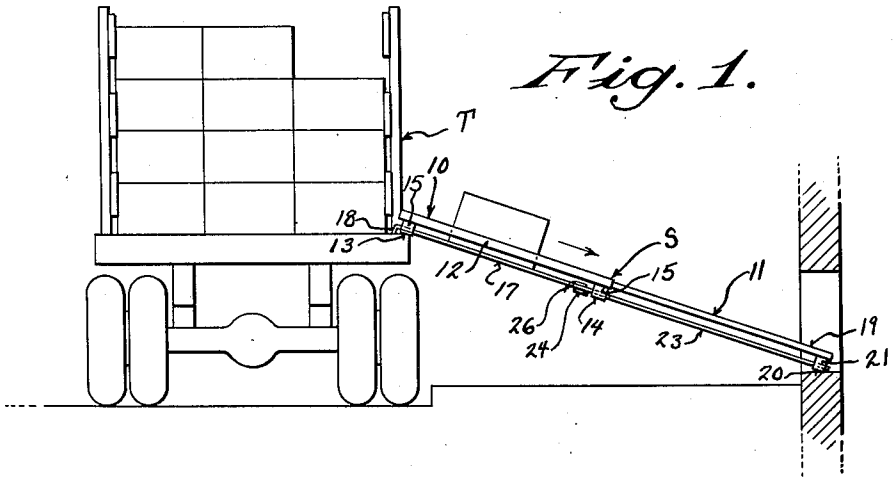

Fig. 2.

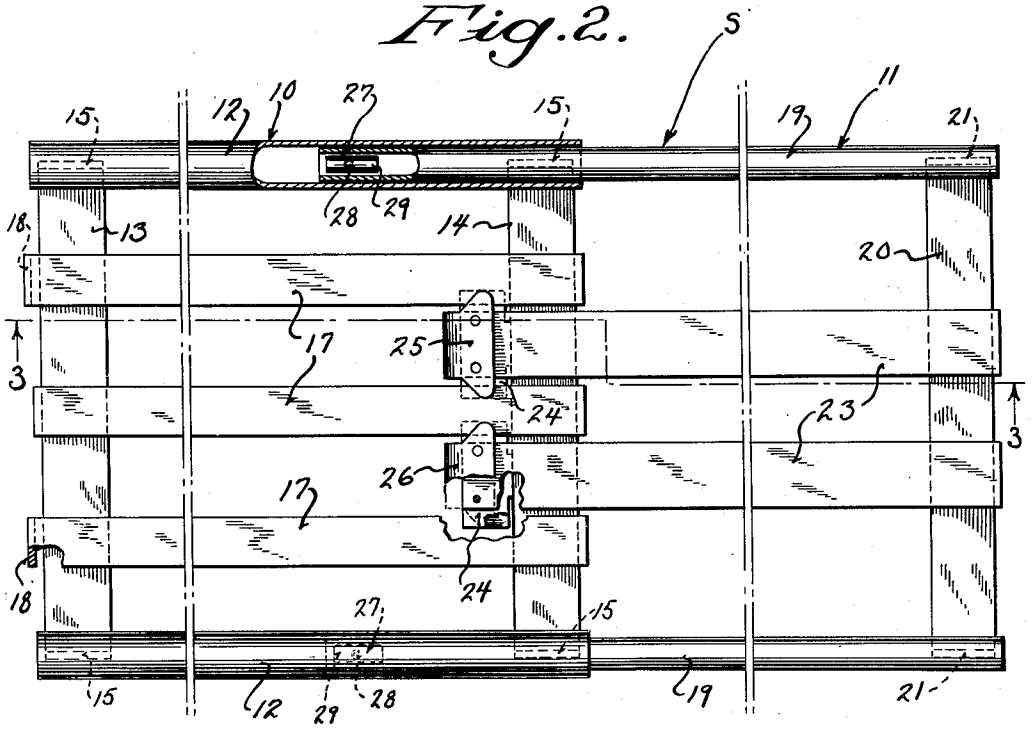

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Fig. 3.

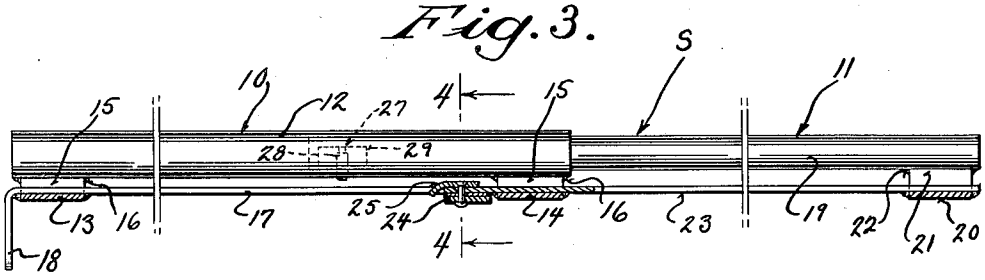


Fig. 4.

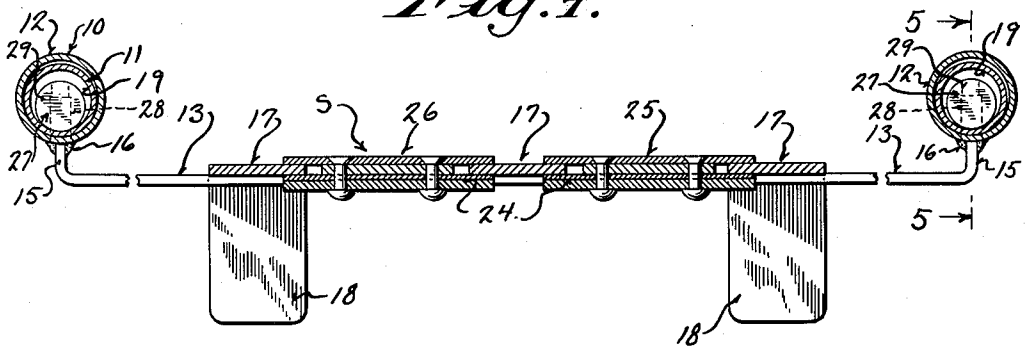


Fig. 5.

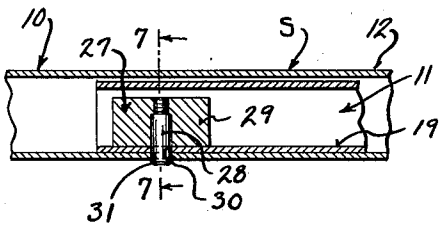


Fig. 6.

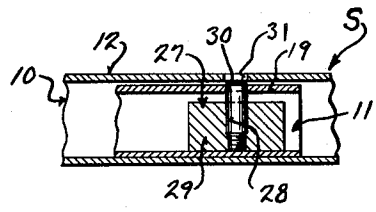


Fig. 7.

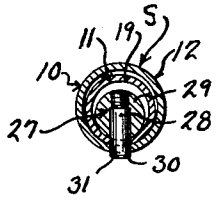
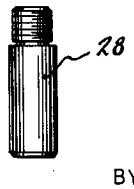


Fig. 8.



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Patented Oct. 28, 1952

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UNITED STATES PATENT OFFICE

2,615,544

UNLOADING DEVICE

Frank J. Rynders, Milwaukee, Wis.

Application March 15, 1950, Serial No. 149,782

1 Claim. (Cl. 193—38)

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This invention appertains to loading and unloading and more particularly to a novel skid for facilitating the moving of heavy objects from one height to another.

One of the primary objects of the invention, is to provide a light, portable skid of an exceptionally rugged and durable construction, which can be efficiently used for sliding articles from trucks and the like.

Another salient object of the invention is to provide a skid embodying a pair of sections slidably connected together, so that the same can be extended to form a full sized device for operative connection with a truck, or collapsed into a small compass for storage, when not in use.

A further object of the invention is to provide a locking device for holding the sections in their extended operative position against accidental movement relative to one another, said locking device being also automatically movable to a released position upon the mere turning over of the skid, with its lower face uppermost, whereby the skid can be easily collapsed.

A further important object of the invention is to provide novel telescoping rails on the longitudinal sides of the sections, said rails functioning as guides for articles being moved up or down the skid.

A still further object of the invention is to provide a novel unloading device of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed and illustrated in the accompanying drawings, in which drawings,

Figure 1 is a side elevational view of the improved skid, showing the same in use with a truck for unloading the same.

Figure 2 is a top plan view of the skid with parts thereof broken away and in section to illustrate structural detail.

Figure 3 is a longitudinal, sectional view through the skid taken on the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is an enlarged transverse sectional view through the skid taken on the line 4—4 of Figure 3, looking in the direction of the arrows.

Figure 5 is a fragmentary detail longitudinal sectional view, taken on the line 5—5 of Figure 4, looking in the direction of the arrows, illustrating

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one of the locking devices in its operative position.

Figure 6 is a view similar to Figure 5, but showing the skid turned over with its lower face uppermost and the locking device in its inoperative released position.

Figure 7 is a detail, transverse, sectional view through one pair of side rails, showing the locking device, the section being taken on the line 7—7 of Figure 5.

Figure 8 is an enlarged, detail side elevational view of one of the locking pins.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views the letter S generally indicates the novel skid, and T a truck, with which the same can be used. Obviously, the truck T forms no part of the present invention and can be considered of any type or character.

The skid S comprises an outer section 10 and an inner telescoping section 11, and each section is constructed somewhat along the same lines.

As illustrated, the section 10, includes a pair of longitudinally extending spaced parallel side rails 12, which are preferably formed from tubing of the desired strength. The rails 12 are rigidly connected together adjacent to their opposite ends by cross straps 13 and 14. These straps are disposed below the rails 12, and have formed on their opposite ends, upturned feet 15, which can be welded or otherwise secured, as at 16, to the lower central faces of the rails 12. The cross straps 13 and 14 are also rigidly connected together by spaced parallel longitudinally extending flat bars 17, which form the body of the skid and these bars 17 are rigidly secured to the cross strap 13 by welding, rivets or the like. The outer ends of the flat bars 17, have formed thereon short depending hooks or legs 18, for a purpose, which will be later set forth.

The section 11 also includes a pair of spaced parallel side rails 19 and these rails can also be formed from tubing of the desired gage and strength. The rails 19 telescope within the rails 12 as can be clearly seen by referring to Figure 2 of the drawings. The outer ends of the rails 19 are rigidly connected together by a cross strap 20, which is disposed below the side rails. The outer ends of the cross strap 20 have formed thereon upturned feet 21, which are welded or otherwise rigidly secured to the lower face of the rails 19. Rigidly secured to the cross strap 20, are spaced parallel longitudinally extending flat bars 23 and these bars are so spaced as to slid-

ably fit between the flat bars 17 of the section 10 and the bars 23 slide over and engage the inner cross strap 14 of the section 10.

In order to form stops and guides for the sections 10 and 11, the inner ends of the bars 23 have riveted or otherwise fastened thereto, guide and stop plates 24 and these plates 24 are of such a width as to extend over the bars 17. Obviously, when the sections 10 and 11 are pulled apart to their desired full open position, the plates 24 will abut the cross strap 14 and prevent the pulling apart of the sections. Fastened to the upper faces of the flat bars 23, by the same rivets, which fastened the plates 24, are top guide plates 25. These top guide plates also extend beyond the side edges of the bars 23 and engage the upper faces of the bars 17. The front ends of the plates 25 are downturned as at 26 so as to engage between the bars 17.

In order to lock the sections 10 and 11 in their extended open position against accidental collapsing, novel locks 27 are provided for the sections 10 and 11. The locks are carried by the side rails of the skid and each includes a lock pin or tumbler 28. The inner ends of the tumblers are carried by cylindrical weights 29 and the pins or tumblers can be threaded into said weights. The outer ends of the tumblers extend beyond the weights, as best shown in Figures 5, 6 and 7. The rails 19 of the section 11 are provided with openings 30 and the pins or tumblers 28 are of such a length as to normally fit in said openings. The openings 30 are adapted to register with openings 31 in the side rails 12, when the sections are in their full open position. When the skid is in use and the sections 10 and 11 are slid apart to their full open position, the pins 28 will fall into the openings 31 and consequently this will hold the sections against relative movement.

When it is desired to collapse the sections, then it is merely necessary to turn the skid over so that its lower face will be uppermost and the weights 29 will fall and pull the pins 28 from out of the openings 31. This will permit the sections to be slid toward one another. As shown in Figure 1, of the drawings, the skid can be effectively used for unloading trucks, and is particularly adapted for sliding heavy objects from a truck into a building through an open window. The hooks or legs 18 will engage sides of the truck and prevent slipping of the skid.

Owing to the arrangement of the sections 10 and 11, relative to the flat bars 17 and 23, the rails are disposed above the said bars and hence function as guides for objects being slid on the skid.

From the foregoing description, it can be seen that I have provided a novel skid of exceptionally durable and simple construction, which can be readily collapsed into a small compass so that the same can be readily carried on a truck.

Changes in details may be made without departing from the spirit or the scope of my invention, but what I claim as new is:

A skid for facilitating the unloading of trucks and the like comprising inner and outer slidably connected sections, each of said sections including hollow side rails with the rails of the inner section telescoping within the rails of outer section, and means for automatically locking the sections in an extended operative position against accidental movement relative to one another including longitudinally extending weights loosely fitted in the hollow rails of the inner section, said rails of the inner section having openings, right angularly extending tumblers secured to the weights and movable in the openings at all times, the walls of the openings forming guides for the tumblers and for preventing longitudinal shifting of the weights, the side rails of the outer section also having openings therein adapted to register with the openings in the rails of the inner section when the sections are in their full extended operative position, whereby said tumblers will ride into the openings of the side rails of the outer section, the weights being of a smaller diameter than the rails, whereby when the skid is turned over with its lower face uppermost the tumblers will ride out of the openings in the rails of the outer section.

FRANK J. RYNDERS.

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