H. L. SCHROEDER.

STRAP HOLDER.

APPLICATION FILED APR. 3, 1914.

1,107,451. Patented Aug. 18, 1914.

Fig. 1

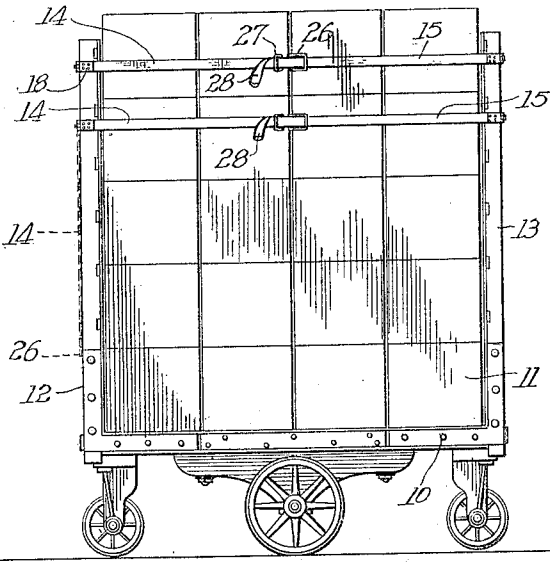


Fig. 2.

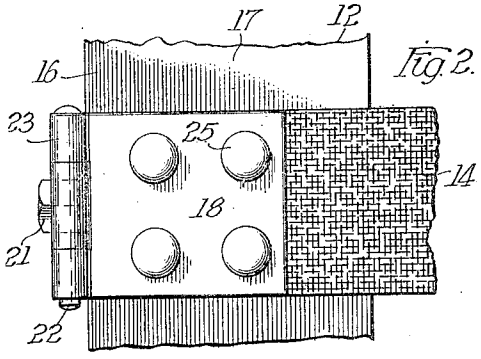


Fig. 3

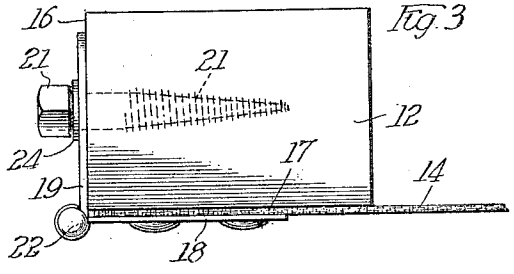


Fig. 4.

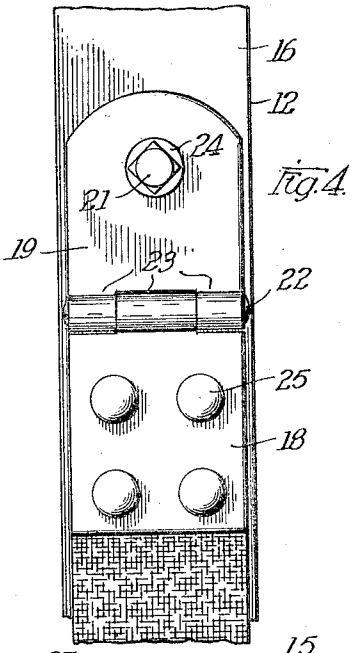
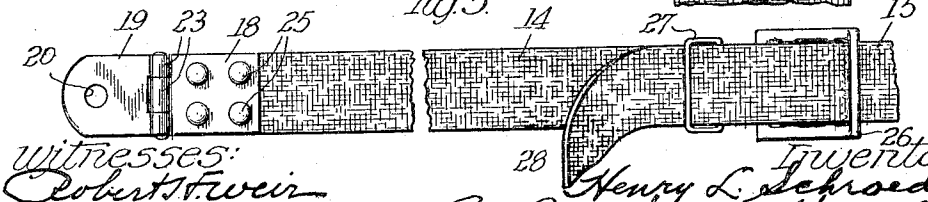


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

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STRAP-HOLDER.

1,107,451. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed April 3, 1914. Serial No. 829,180.

To all whom it may concern:

Be it known that I, HENRY L. SCHROEDER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Strap-Holders, of which the following is a specification.

My invention relates to strap holders and has for its primary object the provision of an improved strap holder which shall have improved means for retaining and positioning a strap.

With the above and other objects in view, this invention consists substantially in the combination, arrangement and construction of parts all as hereinafter described, shown in the accompanying drawings which form a part of this specification and illustrate the preferred embodiment of my invention and more specifically set forth in the subjoined claims.

In the drawings Figure 1 is a side elevation of a truck embodying my invention. Fig. 2 is an enlarged side elevation of my invention with part of the strap broken away. Fig. 3 is a top plan view of my invention with part of the strap broken away. Fig. 4 is an end view of my invention illustrating the parts in a different position from that in Figs. 1, 2, and 3. Fig. 5 is a side elevation of part of my invention showing it detached from its support.

Reference numeral 10 indicates generally a truck adapted for use in factories or shipping rooms for the transportation of packages 11 with which the truck is shown loaded in Fig. 1. End uprights 12 and 13 are provided at opposite ends of the truck for retention of the packages 11 from casually falling off the ends, and straps 14 and 15 are employed spanning the distance between end uprights 12 and 13 to prevent the upper tiers of packages 11 from falling sidewise off the truck. The end uprights 12 and 13 are preferably rectangular in cross section and each has an outer end surface 16 and an outer side surface 17. In the use of trucks such as shown in Fig. 1 it is customary to load the trucks with packages, such for instance as cubical tins of biscuits, and to buckle together the ends of the straps 14 and 15 to retain in position the upper tier or tiers of packages.

Heretofore trucks similar to that shown in Fig. 1 have been constructed wherein the straps 14 and 15 have been rigidly fastened by one end to the end surface 16 of the uprights 12 and 13. By reason of this construction the straps 14 and 15 when unbuckled have fallen into a position wherein they protruded an inconvenient distance from the vertical sides of the truck interfering with the passage of trucks close to each other and also with the handling of the trucks in other ways. Another disadvantage of such construction has lain in the fact that by reason of the pull exerted upon the straps around the corner formed by the meeting of the surfaces 16 and 17 the straps have very quickly worn in two and broken off. My invention is adapted to obviate these undesirable conditions by employing a hinged retainer comprising a strap holding web 18 and a swivel web 19 apertured as at 20 for engagement with a lag screw or similar device 21. Preferably the joining of the webs 18 and 19 is made by an ordinary hinge pin 22 and collars 23 formed upon adjacent ends of the webs for engagement with the pin. The lag screw 21 is passed through the aperture 20 of the web 19 and is screwed into the upright 12 or 13 in such manner that its head will protrude from the face 16 a sufficient distance from the surface 17 to position the hinge pin 22 at the corner formed by the surfaces 16 and 17. Preferably a washer 24 is interposed between the lag screw 21 and the web 19 and the engagement of the web 19 with the lag screw is sufficiently loose to allow the web to swivel freely about the screw. One end of the strap 14 or the strap 15 as the case may be is fastened to the web 18 by any suitable means such as the rivets 25. The strap 14 carries upon its free end a buckle 26 and a catch 27 for engagement with the free end 28 of the strap 15.

When employed for retaining packages upon a loaded truck or for performing any other useful function the parts of my invention are positioned as illustrated in full lines in Figs. 1, 2, and 3, and when the straps are unbuckled and out of service they assume the position illustrated in dotted lines in Fig. 1 and full lines in Fig. 4. In this latter position it will be noted that the retainer together with the strap 14 or 15 held by it has assumed a vertical position contiguous to the surface 16 of one of the end uprights but in which it does not protrude at all from the side of the truck and a minimum distance from the end thereof. When the straps 14 and 15 are unbuckled their weight is nor-

mally sufficient to cause the retainer and the straps to drop automatically into the idle position illustrated in Figs. 1 and 4 but should the engagement between the web 19 and the lag screw 21 be somewhat stiff they may be readily adjusted into their idle positions manually. It is an advantage of my invention that the pull exerted upon the straps 14 or 15, passes through the web 18, one of the collars 23, and the pin 22 and is borne by the web 19 which is preferably constructed of metal. By this construction the wear upon the straps is very slight.

In the accompanying drawings and in the foregoing description is set forth the preferred embodiment of my invention, but it is obvious that one skilled in the art may make modifications thereof without departing from the spirit of the invention.

I claim:

1. The combination of a support, a hinged retainer swiveled to the support by one of its webs for oscillation in an approximately vertical plane, and a strap fastened by one end to the free web of the retainer.

2. The combination of a support, a strap, a stud protruding from the support approximately horizontally, and a strap holder comprising two webs hinged together, one of which is apertured for loose engagement with the stud and the other web of which carries the strap.

3. The combination of a support having two approximately vertical faces meeting to form a corner, an approximately horizontal stud protruding from one of said faces, a strap adapted to exert pull upon the support in a direction approximately horizontal and in the plane of the other face of the support, and a hinge to one web of which an end of the strap is fastened, and the other web of which is loosely engaged by the stud.

4. The combination of a support having two approximately vertical faces meeting to form a corner, an approximately horizontal stud protruding from one of said faces, a strap adapted to exert pull upon the support in a direction approximately horizontal and in the plane of the other face of the support, and a hinge to one web of which an end of the strap is fastened, and the other web of which is loosely engaged by the stud, the webs of the hinge joining in an approximately vertical line adjacent the corner of the surfaces.

5. The combination with a truck having end uprights, of a hinge, a stud horizontally positioned in one upright protruding from one outer face thereof and upon which one web of the hinge is swiveled, a strap secured by one of its ends to the other web of the hinge, and means for fastening the strap to another end upright of the truck.

6. A device for securing flexible straps to a vertically arranged supporting member comprising a hinge member having two rigid leaves pivotally connected, means for attaching straps to one of said leaves, and means for pivotally connecting the other leaf to the support on a horizontal axis at right angles to the axis of the hinge.

7. A device for securing straps to supports on trucks and the like comprising a metallic plate pivotally secured to the support adjacent the corner thereof on a horizontal axis, said plate adapted to protrude beyond its point of pivotal securement to a position past the corner of the support when the plate is in horizontal position, and means for flexibly connecting the strap to the plate.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 30th day of March, A. D. 1914.

HENRY L. SCHROEDER.

Witnesses:

ALLENA OFFUTT,

CHARLES H. SEEM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."