

O. LINK.
RIVET.

APPLICATION FILED MAR. 24, 1910.

982,078.

Patented Jan. 17, 1911.

Fig. 1.

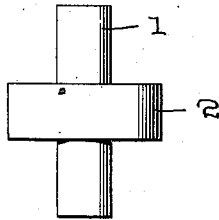


Fig. 2.

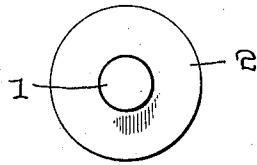


Fig. 3.

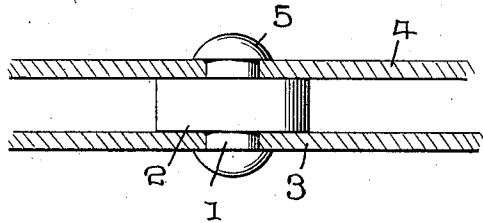
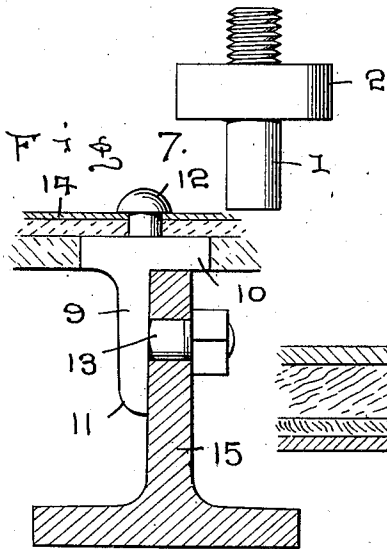


Fig. 4.



WITNESSES:

Thor. W. Riley
B. D. Christie

Fig. 5.

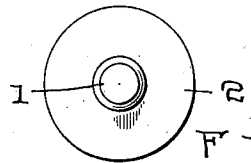


Fig. 6.

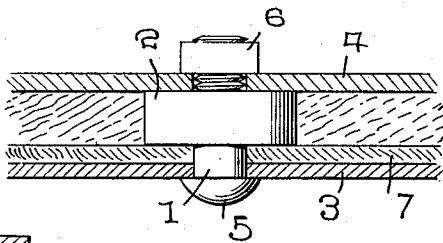
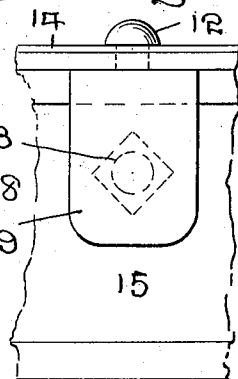


Fig. 8.



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OLIVER LINK, OF ST. CHARLES, MISSOURI.

RIVET.

982,078.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLIVER LINK, a citizen of the United States, residing at St. Charles, in the county of St. Charles and State of Missouri, have invented certain new and useful Improvements in Rivets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in rivets and more particularly to that class adapted to be used in constructing metallic railway cars or coaches, iron frame works, etc., and my object is to provide a rivet which will extend through the metallic parts a sufficient distance to have the ends thereof upset or otherwise secured, and, a further object is to provide a spacing disk or body between the ends of the rivet and form said parts of the rivet integral.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is an elevation of the rivet before being applied to use. Fig. 2 is an end elevation thereof. Fig. 3 is a plan view partly in section showing the rivet applied to use. Fig. 4 is a side elevation of a modified form of rivet. Fig. 5 is an end elevation thereof. Fig. 6 is an elevation partly in section showing that form of rivet as disclosed in Figs. 4 and 5 applied to use. Fig. 7 is a sectional view showing the rivet applied to use in connection with structural iron work, and, Fig. 8 is a plan view thereof.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the projecting ends of the rivet, which are preferably round in cross section and are attached to a body portion 2, the projecting ends and body portion being preferably formed integral with each other. The body portion 2 is in the form of a disk and is primarily used in building steel cars, so that when it is desired to have an air space between the inner and outer sections 3 and 4 of the metal walls of the car body, the

body portion 2 is fitted between said walls and retains the same in their spaced positions.

When that form of rivet shown in Fig. 1 is employed, the ends of the rivet are introduced through the walls and the ends thereof then upset to form heads 5, which heads securely hold the walls in engagement with the rivet and in engagement with the ends of the body.

As shown in Figs. 4 and 6, that portion of the rivet at one side of the body may be threaded to receive a nut 6 or if preferred, both ends of the rivet may be threaded and nuts applied to each end thereof. When but one of the ends of the rivet is threaded, the opposite end thereof is upset to form a head. In some instances, it is desired to place a wood filling 8 between the walls 3 and 4 and at other times it is desirable to place a lining of asbestos 7 between one of the walls and the wood filling. When the filling of wood is used, an opening is formed therethrough of sufficient diameter to snugly receive the body 2, while the asbestos filling is placed between one face of the body and the wall with which the asbestos engages, this construction being shown in Fig. 6 of the drawings.

The rivets are primarily formed by swaging or drawing the same. The primary object in threading the stem of the rivet and placing a nut thereon is to utilize the rivet in places where it would be impossible to form a head on the end of the rivet, as the nut could readily be introduced on to the threaded end of the rivet in places where it would be impossible to introduce the upsetting or head forming tool.

In Figs. 7 and 8, I have shown that form of rivet employed primarily in attaching parts of structural iron work and in this instance, the body 9 is substantially of an inverted L shape, thus forming a horizontal and vertical section 10 and 11, the horizontal portion having a stem 12 extending upwardly therefrom, while one face of the vertical portion has a stem 13 projecting laterally therefrom, the stem 12 being introduced through a metal section 14, while the stem 13 is introduced through the body of a T iron 15, said T iron extending at right angles to the section 14. The stems 12 and 13 are

to be upset, as shown in Fig. 3, or one or both of said stems may be threaded to receive nuts if occasion may require.

It will be readily understood that the body
5 portion of the rivet may be constructed in various shapes and designs to accommodate the same for use in connection with various structures. It will further be seen that the
10 rivet and body can be readily formed and made integral with each other by using a drop forge or other well known means for shaping metal and it will likewise be seen that said rivets may be applied to use by up-
15 setting the ends of the rivets or placing nuts thereon when the rivets are used in positions where the ends of the rivets could not be upset.

What I claim is:—

1. A fastening device for securing two par-
20 allel metallic plates in spaced relation and an intermediate non-metallic plate in contact with one of them, consisting of a rivet having an expanded portion in the form of a disk which serves as a fixed head therefor
25 and as a spacing means, a screw-threaded stud projecting from one face of said disk and formed integrally therewith, a similar stud projecting from the opposite face of
30 said disk portion, a nut co-acting with the first stud, whereby said rivet may be secured

to one plate by the screw stud and nut and the end of the opposite stud then upset to fasten the second plate and its co-acting one together.

2. A double ended rivet for securing two 35 plates at right angles and in spaced relation, consisting of an angle head, a stem projecting from the outside of one leg of the head and a second stem projecting from the inside of the other leg, whereby one plate will serve 40 as backing in upsetting the head of the first stem and the fastening thus made eliminate the necessity of backing for the upsetting of the second stem.

3. A fastening device for securing two 45 plates at right angles and in spaced relation, consisting of an angle piece, a rivet stud projecting from the outside of one leg and a screw stud projecting from the inside of the other leg, whereby in upsetting the head of 50 the first stud, the plate secured by the second will serve as backing.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OLIVER LINK.

Witnesses:

ADOLF BECKER,
H. G. RAUCH.