J. L. JEFFERIES.

CLAMP.

APPLICATION FILED APR. 14, 1921.

1,397,930. Patented Nov. 22, 1921.

Fig. 1

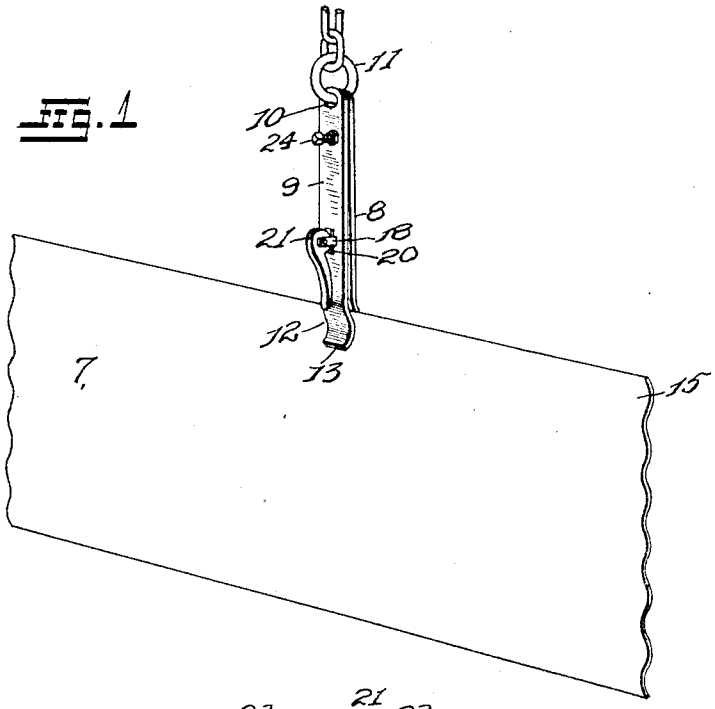


Fig. 2

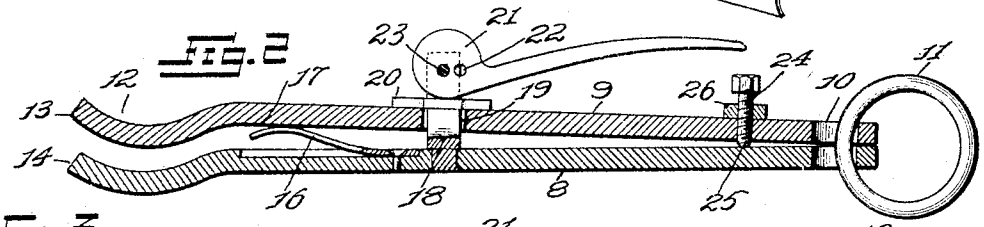


Fig. 3

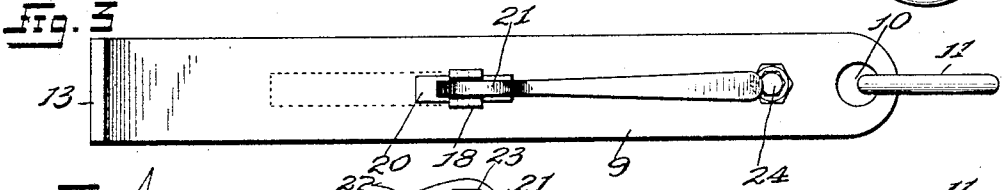


Fig. 4

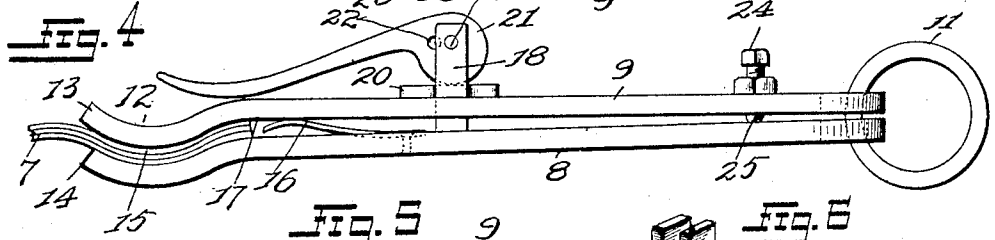


Fig. 5

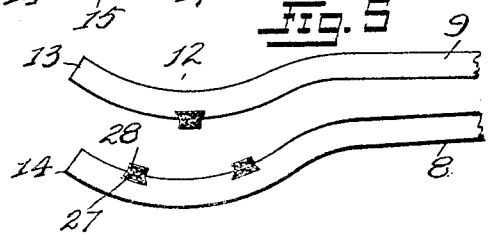
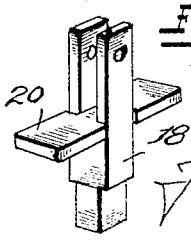


Fig. 6



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UNITED STATES PATENT OFFICE.

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CLAMP.

1,397,930. Specification of Letters Patent. Patented Nov. 22, 1921.

Application filed April 14, 1921. Serial No. 461,444.

To all whom it may concern:

Be it known that I, JOHN L. JEFFERIES, a citizen of the United States, and resident of St. Louis, Mo., have invented certain new and useful Improvements in Clamps, of which the following is a specification.

This invention relates to improvements in clamps and has for its object a pair of clamping members supported together by hoisting members, a means locking the jaws of the members and a means for automatically spreading the jaws when the locking means is released.

A further object of my invention is to construct a clamp to be used in connection with the hoisting of sheet metal such as corrugated sheets, the same being so arranged as to have its clamping jaws conform with the contour of the sheet and a means for firmly locking the jaws against the sheet to hold it while the sheet is being hoisted.

This structure of clamp is readily, easily and rapidly adjusted in position and it dispenses with the use of tying ropes around the sheet and prevents accident by way of the sharp edges of the sheet cutting through the rope and permitting the sheets to fall during the hoisting process.

The device is simple and one of its main features is to rapidly adjust the same to the sheet and rapidly release the same so as to save time during the hoisting process.

Figure 1, is a perspective view of my invention shown in application to a corrugated sheet.

Fig. 2, is a central sectional view of the same.

Fig. 3, is a top plan view.

Fig. 4, is a side view.

Fig. 5, is a detail side view of the clamping jaws showing a modified form of inserting resilient strips which are used when handling sheet material which must not in any way be marred by the pressure of the clamp.

Fig. 6, is a detail perspective view of the supporting post made use of in connection with the clamp.

Referring to the drawings in detail 7 indicates a sheet of material such as corrugated metal or the like, to this sheet is adapted to be applied my improved clamp which consists of two members 8 and 9, the one end of each of these members is provided with an opening 10 through which a ring 11 is passed for holding the members as well as to act as a hoisting means when applied to the chain or cable.

The opposite ends of the members 8 and 9 are suitably bent as indicated by the numeral 12, these bent ends forming clamping jaws 13 and 14, the curvature of these jaws are arranged to correspond with the curvature 15 formed in the sheet metal, thus when the two jaws are clamped tightly in position against the sheet it forms a perfect bite and prevents the sheet in any way from slipping out of position. The member 8 is provided with a spring 16 the same being fastened at its one end to a member 8 while the other end is free to contact with and exert pressure against the underside 17 of the upper member 9 and the tension of this spring is to automatically separate the two members so as to permit the jaws to be adjusted in position on the plate.

On the member 8 is also supported a post 18 the upper portion of the post is bifurcated and extends through an opening 19 formed in the plate 9 and upon the top of the plate 9 and between the bifurcations of the post 18 is located a pressure plate 20 which rides up and down with the movement of the plate 9 and between the bifurcations of the post 18 is axially mounted a locking cam 21. this cam is provided with a plurality of openings 22 through which the supporting pin 23 is passed and the purpose of the number of openings is to regulate the cam action against the plate 20 so as to also regulate the clamping pressure between the jaws.

The adjustment of the cam is in accordance with the thickness of the sheets to be handled or when one or a plurality of sheets are to be hoisted at once.

The adjustment between the jaws is also regulated by the adjusting screws 24 supported in the member 9 and when the screw is adjusted so that its point 25 contacts with the upper surface of the member 8 it is held in set position by the lock-nut 26.

In some instances when it is desired to hoist sheet material such as asbestos, wood or sheets of other material whose surface must not in any way be marred I construct a clamp with the clamping jaws provided with grooves 27 in which is inserted strips of resilient material 28 such as rubber, cork, fiber or the like, and the position is such

as to create a proper binding to the sheet yet not mar its surface.

Having fully described my invention what I claim is:

1. A clamp for supporting sheet metal during hoisting process comprising a pair of comparatively parallel clamping members, a cam for locking the members in position against the sheet to be supported and a screw for adjusting the position of the members, substantially as specified.

2. A clamp of the character described comprising two members both supported by a ring, a post carried by one of said members and passing through the other, a clamping operating means supported by the post and an adjusting means for regulating the space between the members, substantially as specified.

3. A clamp of the character described comprising two like shaped members the same supported to a hoisting line, the free ends suitably bent to form clamping jaws, a leaf spring located between the members for automatically spreading the jaws when in unlocked position, a post supported by one of the members and passing through a hole formed in the other and a cam located in the post for closing the members against the sheet and holding the same in locked position.

4. A device of the character described comprising a pair of elongated like shaped members, the free ends being suitably bent to conform with the contour of a sheet of corrugated metal, an adjusting screw carried by one of the members for regulating the space between two members a leaf spring located between the members for automatically spreading the same when in un-locked position and a cam for closing the jaws and holding the same in locked position against the sheet metal, substantially as specified.

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

JOHN L. JEFFERIES.

Witnesses:

ALFRED A. EICKS,

B. M. MARME.