March 9, 1954 G. C. NOACK 2,671,310

RIVET REMOVER FOR CHAINS

Filed Oct. 16, 1951

Fig. 1.

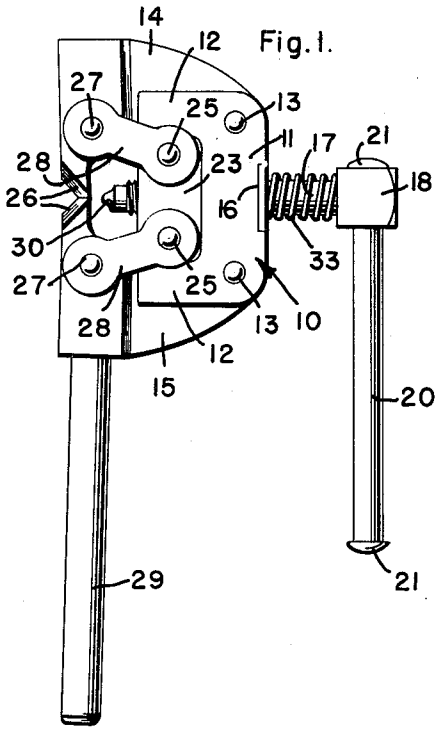


Fig. 2.

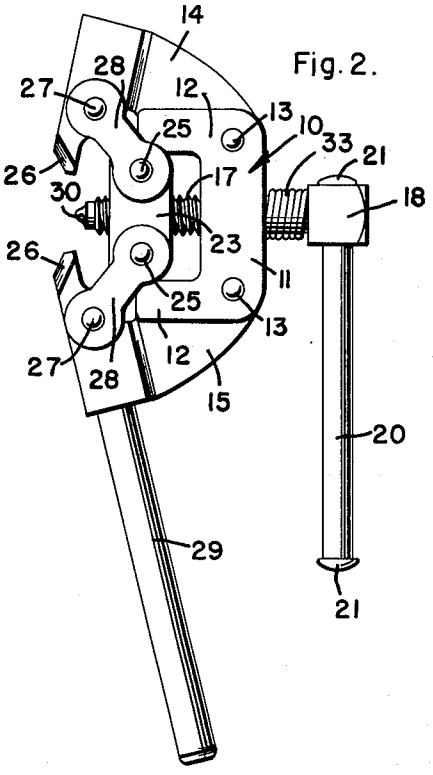


Fig. 4.

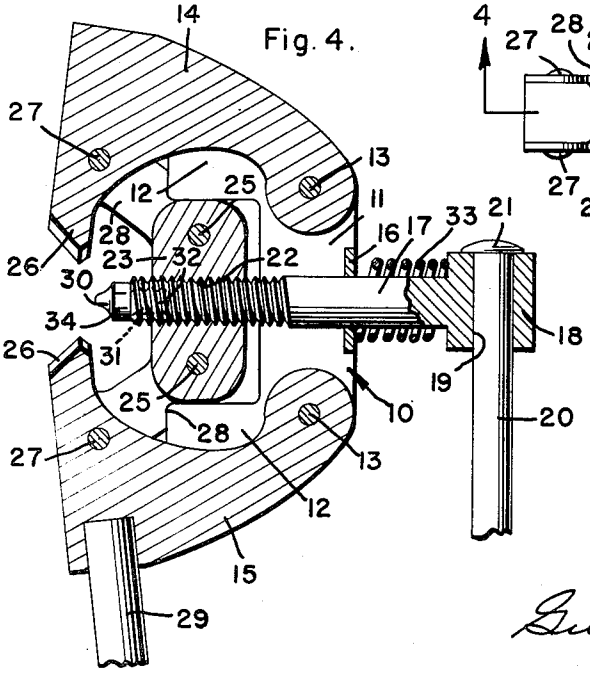
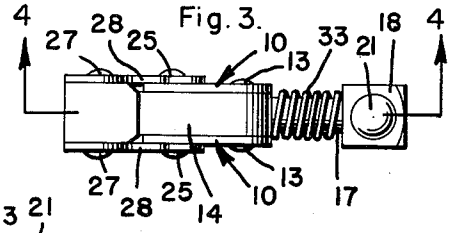


Fig. 3.



INVENTOR

Gust C. Noack

Patented Mar. 9, 1954

2,671,310

UNITED STATES PATENT OFFICE

2,671,310

RIVET REMOVER FOR CHAINS

Gust C. Noack, Valley City, N. Dak.

Application October 16, 1951, Serial No. 251,530

1 Claim. (Cl. 59—7)

1

The present invention relates to a rivet remover for chains and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally there is provided a rivet remover having a body through which slidably extends a bolt which is threadably engaged at its inner end with a block likewise slidably engaged with the body. A pair of jaws is hinged one at either side of the body and is provided at its inner end with bifurcated portions which together form an opening for the reception therethrough of a pin removably mounted in the free end of the bolt. The bolt is provided at its other end with a head transversely apertured for an elongated handle and a compression spring surrounds the bolt between the head and the body to normally force the jaws together, the latter being interconnected with the block by means of links. A fixed handle is attached to one of the jaws, and may be utilized with the slidable handle to move the jaws apart against the action of the aforesaid spring. The device is such that it may be utilized to quickly and easily remove rivets particularly from bicycle chains and the like and possesses many novel features which will be brought out in the annexed specification.

It is accordingly an object of the invention to provide a novel rivet remover.

Another object of the invention is to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

A further object of the invention is to provide, in a device of the character set forth, a novel removably mounted pin forming a part of the invention.

A further object of the invention is the provision of a pair of novel collecting handles forming a part of the invention.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

Figure 1 is a side elevational view of an embodiment of the invention showing the same in closed condition,

Figure 2 is a view similar to Figure 1 but showing the same in opened condition,

Figure 3 is a plan view of Figure 1, and

Figure 4 is an enlarged vertical sectional view, partly in elevation and partly fragmentary and illustrating certain details of construction.

Referring more particularly to the drawing, there is shown therein a pair of body plates each

2

generally indicated at 10 and which plates 10 are in parallel spaced relation to each other and each consists of a bight portion 11 and a pair of parallel legs 12. Adjacent each end of their bight portions 11 the plates 10 are interconnected by rivets 13 and, revolubly mounted upon each of the rivets 13 and lying between the plates 10 in each case is an outer jaw 14 and an inner jaw 15.

A transversely extending bridge member 16 interconnects, as by welding the central portions of the outer edges of the plates 10 and has slidably extending therethrough a bolt 17 which is provided at its outer end with a head 18 transversely apertured, as indicated at 19, for the slidable reception therethrough of an elongated handle 20 which is provided with enlarged outer ends 21 to prevent the removal of such handle from the head 18.

The inner end of the bolt 17 is threadably engaged, as indicated at 22, with a block 23 and extends entirely therethrough.

The block 23 is slidably mounted between the legs 12 which form a guide therefor and a rivet 25 extends transversely through the block 23 adjacent each outer end thereof.

The jaws 14 and 15 are provided with inwardly directed bifurcated ends 26 and each has extending transversely therethrough adjacent such inner ends a rivet 27. Interconnecting the outer ends of each of the rivets 25 with each of the outer ends of the rivets 27 are links 28. A fixed handle 29 is attached to the jaw 15 and extends in a direction generally parallel to the handle 20 when the device is in its closed position, as indicated in Figure 1.

A pin 30 is provided with an exteriorly threaded reduced portion 31 which is threadably engaged in an interiorly threaded centrally disposed recess 32 formed in the inner end of the bolt 17 and a compression spring 33 surrounds the bolt 17 and bears against the bridge 16 at one of its ends and against the head 18 at its other end.

In operation, it will be apparent that when it is desired to remove a rivet from the device or devices which the rivet may be engaged with, it is only necessary to move the jaws 14 and 15 apart by grasping the handles 29 and 20 and moving the same toward each other as shown in Figure 2 whereupon the bifurcated ends of the jaws may be engaged with the device in which the rivet to be removed is mounted and allowed to come together by means of the action of the spring 33 which, since it urges the bolt 17 outwardly will likewise exert a pulling force upon the block 23 and,

through the links 28 will cause the inward movement of the jaws 14 and 15 toward each other. When this has been accomplished, it is only necessary to manipulate the handle 20 to screw the bolt 17 and hence the removable pin 30 against the rivet and to thereby force the rivet from engagement with the material in which it may be mounted. When the pin 30 may become worn or injured, it may be readily replaced by utilizing flattened portions 34 which are formed on diametrically opposed sides thereof to provide gripping surfaces for a wrench, pliers or the like after which the pin may be replaced with a new one.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claim.

What is claimed is:

A rivet remover for roller type chains comprising a pair of U-shaped plates, each having two leg portions and a bight portion, a pair of jaws each pivotally connected adjacent one of the ends of the bight portions of said plates, said jaws being pivotable between the plates and extending beyond the ends of said leg portions to grip the chain links, a substantially rectangular block slidable between and in parallel relation to the leg portions of said plates, said block having one dimension substantially equal to the distance between the parallel leg portions and slidably engaging the inner edges thereof and the other dimension of said block being substantially equal to the distance between the outer side faces of said plates, a bridge of sheet material centrally interconnecting the bight portions of said plates, a bolt slidable through said bridge and threadably extending through said block, links interconnecting the side portions of said block and the free end portions of said jaws and slidable over the outer side faces of the leg portions of said plates, said links having pivotal connections at each end thereof with said block and said jaws, a head at the outer end of said bolt, a compression spring surrounding said bolt and bearing against said head and said bridge, a handle slidably and laterally extending through said head, a handle affixed to and extending from one of said jaws, and a pin fixed to the free end of said bolt.

GUST C. NOACK.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
471,084	Hopkin	Mar. 15, 1892
1,435,397	Hunt	Nov. 14, 1922

FOREIGN PATENTS

Number	Country	Date
171,020	Great Britain	Nov. 10, 1921
171,041	Great Britain	Nov. 10, 1921
370,794	Great Britain	Apr. 14, 1932