No. 878,041. PATENTED FEB. 4, 1908.

J. BUTSCH, Sr.

RIVET EXTRACTOR.

APPLICATION FILED AUG. 7, 1907.

FIG. 1.

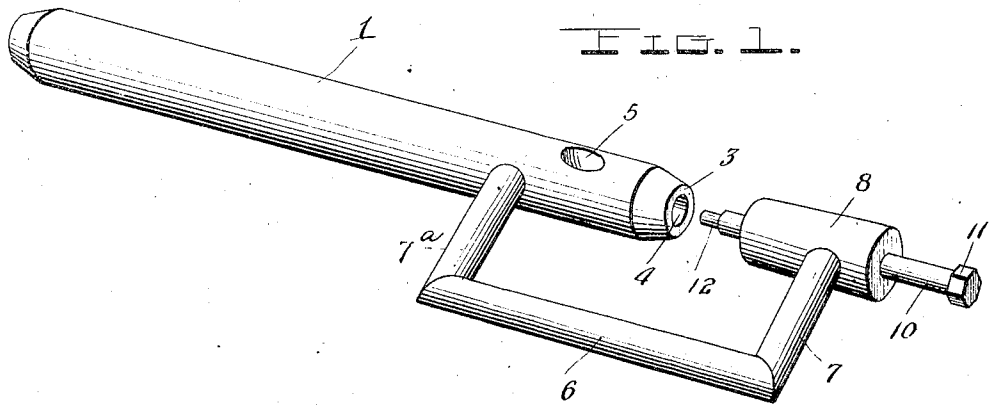


FIG. 2.

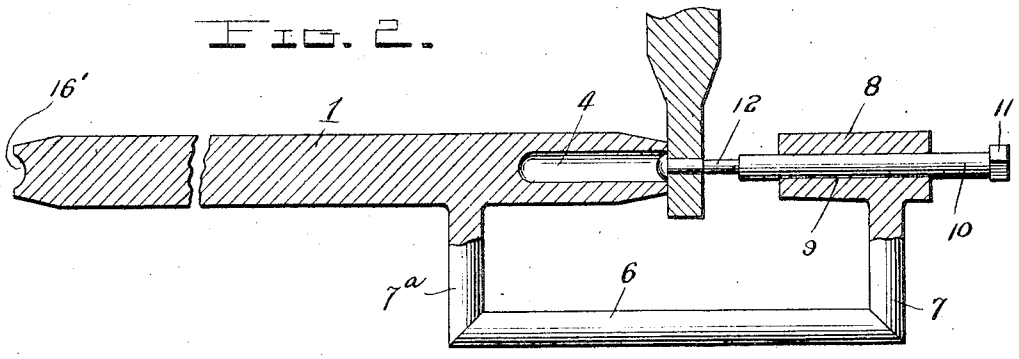


FIG. 3.

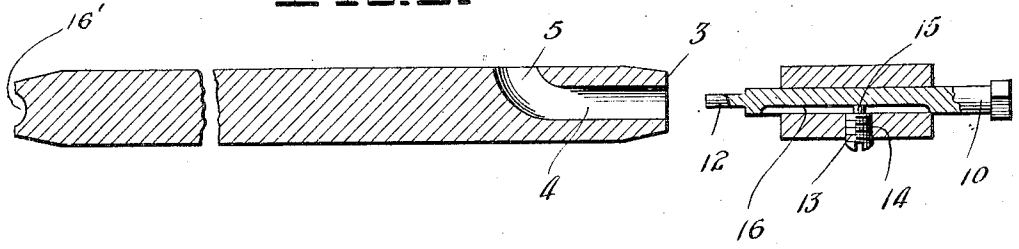
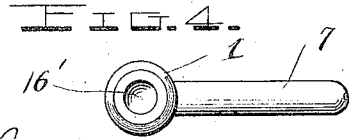


FIG. 4.



Witnesses
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JOHN BUTSCH, SR., OF CROSSVILLE, ILLINOIS.

RIVET-EXTRACTOR.

No. 878,041. Specification of Letters Patent. Patented Feb. 4, 1908.

Application filed August 7, 1907. Serial No. 387,546.

To all whom it may concern:

Be it known that I, JOHN BUTSCH, Sr., a citizen of the United States, residing at Crossville, in the county of White and State of Illinois, have invented certain new and useful Improvements in Rivet-Extractors, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in devices for removing or extracting rivets, pins and the like from the sockets of, buggy bows and other objects.

The object of the invention is to improve and simplify the construction and operation of devices of this character and to provide one which will be inexpensive, durable and very convenient and effective for the purpose intended.

With the above and other objects in view the invention consists in the novel construction and the combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of my improved rivet extractor. Fig. 2 is a longitudinal sectional view illustrating the operation of the device; Fig. 3 is a similar view taken on a plane at right angles to that of Fig. 2, and Fig. 4 is an end elevation of the device.

My improved tool comprises a long, straight handle bar or body 1 preferably of cylindrical form and having its ends slightly beveled, as shown. The outer end 3 of the body is adapted to serve as an anvil and in it is formed a longitudinally extending, cylindrical bore or socket 4 which communicates with a rearwardly and outwardly inclined passage 5 opening upon one side of the body at a suitable distance from the end or anvil 3, as more clearly shown in Fig. 3. Formed intergral with the body is a substantially U-shaped bracket 6 having parallel arms 7, 7^a the latter of which projects at right angles from the body a suitable distance from its anvil end so that the central or connecting portion of said bracket is disposed parallel with the body. The outer arm 7 of this bracket is formed at its end with a right angularly disposed bearing or enlargement 8 which is arranged in longitudinal alinement with the body and has its inner end spaced at a suitable distance from the anvil 3. The bearing 8 is formed with a cylindrical bore or opening 9 arranged in alinement and concentric with the bore 4 and adapted to receive a punch 10. The latter is cylindrical in form and has at its outer end a head 11 and at its inner end a reduced portion or point 12. The body portion of the punch is of such size that it is adapted to slide or reciprocate freely in the bearing or guide 8 and it is limited in its sliding movement by a set screw 13 arranged in a threaded opening 14 in one side of the bearing 8 and having at its inner end a reduced portion 15 adapted to project into a longitudinal groove or recess 16 formed in the punch. This groove has closed ends and is of such length as to permit the punch to have sufficient movement. At the opposite or inner end of the body or handle bar is formed a concave recess or seat 16′ adapted to receive the head of a rivet.

In using the tool for removing or extracting a rivet from a buggy bow socket or a similar object the latter is placed upon the anvil 3 with the rivet head projecting into the opening 4 and the body of the rivet in alinement with the punch 10. The head of the punch is then struck one or more times with a hammer or the like so that the end 12 of the punch will force the rivet out of the object and into the opening 4 in the body of the tool, as will be readily understood upon reference to Fig. 2. The rivet being of less size than the opening 4 will pass through the latter and out of the angular passage 5. The provision of the reduced end 12 of the punch not only enables the rivet to be readily forced out of the bow socket but also lessens the danger of the punch damaging or breaking the socket. It will be noted that the long body 1 of the tool forms a convenient handle by means of which the anvil 3 may be effectively held against the buggy bow or other object, and braced so that the punch may be readily struck by a hammer held in the right hand. Since the tool enables the left hand to both brace the buggy bow and properly position the punch, it will be seen that by means of it one man can do the work more effectively and quicker than it would take two to do it without the tool. It will be further noted that the bracket arm 7 and the guide 8 effectively hold the punch in proper alinement with the body of the tool and that the screw and groove connection between the punch and its bearing or guide retains the former in the latter and also prevents it from rotating

and slipping. The inner end of the body or handle bar may be used in heading a rivet, by placing the socket 16′ over the rivet head and pressing said end of the body against the object in which the rivet is located, while the opposite end of the rivet is being upset by a hammer or the like. By beveling the opposite ends of the handle bar or body it will be seen that said ends may be engaged with rivet heads that are arranged very close to each other and that said ends will at the same time be able to secure a firm purchase upon the object containing the rivet.

Having thus described my invention what I claim is:

The herein described tool comprising a straight handle bar formed at its outer end with a concentric longitudinally extending bore or opening terminating in a rearwardly and outwardly inclined passage which opens upon one side of said bar, said outer end being also tapered to provide a narrow annular bearing surface or anvil, a U-shaped bracket having one of its parallel arms formed integral with said bar and projecting at right angles from the latter at a suitable distance from its anvil end, the connecting portion of said bracket being parallel with said bar, the other arm of said bracket being formed with a bearing or guide arranged in longitudinal alinement with said bar and spaced from said anvil, said bearing being formed with a longitudinal bore or opening and with a transverse screw threaded opening, a punch slidably arranged in the longitudinal opening in the bearing and having at its inner end a reduced portion or point and at its outer end an enlarged portion or head, said punch being also formed with a longitudinal groove provided with closed ends, and a stop screw arranged in the threaded opening in said bearing and having a reduced inner end to project into the groove in the punch, substantially as shown and described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN BUTSCH, Sr.

Witnesses:

Wm. Britton,

Henry Rettig.