(No Model.)

T. SPRIGGS.

BOLT GRIP.

No. 455,645. Patented July 7, 1891.

Fig. 1.

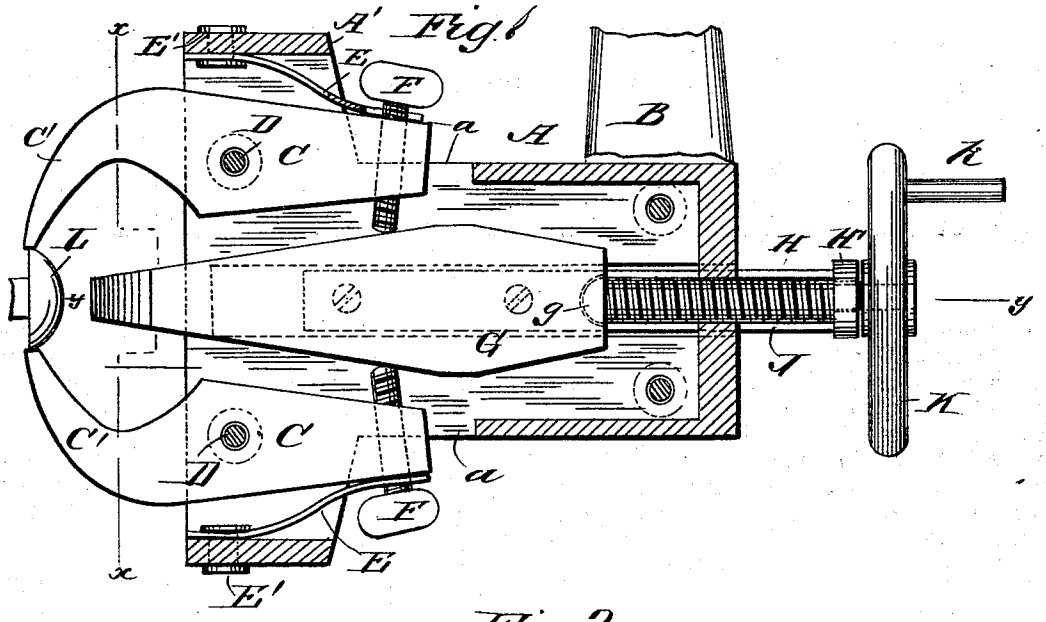


Fig. 2.

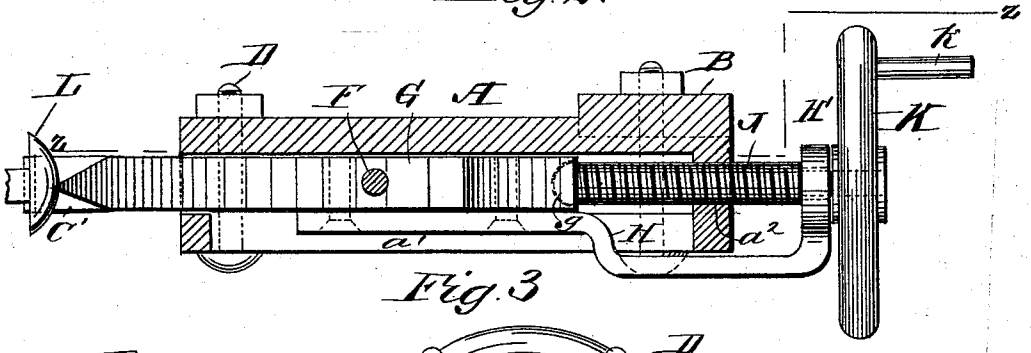
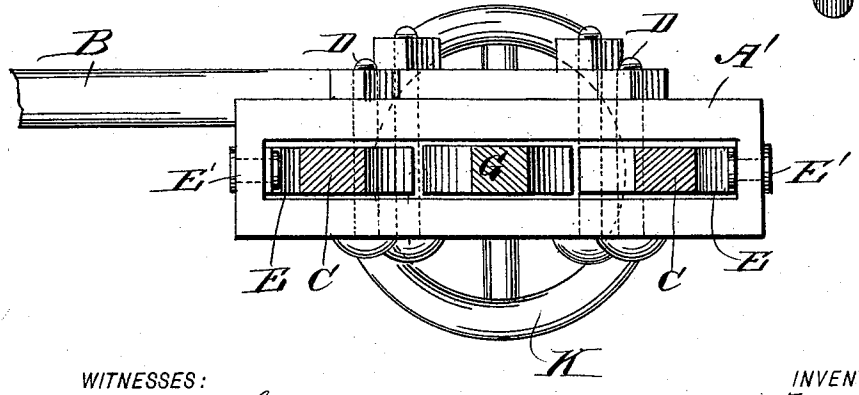


Fig. 3.



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THOMAS SPRIGGS, OF LITTLE RIVER, KANSAS.

BOLT-GRIP.

SPECIFICATION forming part of Letters Patent No. 455,645, dated July 7, 1891.

Application filed December 2, 1890. Serial No. 373,343. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SPRIGGS, of Little River, in the county of Rice and State of Kansas, have invented a new and Improved Bolt-Grip, of which the following is a full, clear, and exact description.

My invention relates to improvements in bolt-grips. It is well-known that when nuts become rusted upon a bolt the bolt will often turn in its socket before the nut can be started and in many other places it is difficult to prevent the bolt from turning when a nut is to be started.

The object of my invention is to produce a bolt-grip which may be conveniently secured to the head of the bolt, and which will firmly hold the same so that the bolt cannot turn.

A further object of my invention is to produce a device which may be used instead of pinchers for the purpose of pulling nails or other articles and for clipping bolts and rivets and holding gas-pipe.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section on the line $z\,z$ of Fig. 2, showing the arrangement of the chisel and jaws within the frame. Fig. 2 is a longitudinal section on the line $y\,y$ of Fig. 1; and Fig. 3 is a cross-section on the $x\,x$ of Fig. 1, looking into the frame.

The bolt-grip is provided with a hollow frame or casing A, which is enlarged at the bottom, as shown at A′, and which is provided with recesses in the sides at the top of said enlarged portion, as shown at a in Fig. 1. The casing is open at the bottom, and to the upper part of the casing is bolted a laterally-extending handle B, by means of which the device is carried about and partially operated.

Pivoted in the enlarged portion A′ of the frame or casing is a pair of jaws C, the lower ends of which project from the bottom of the casing and are curved toward each other, as shown at C′, and the upper ends of which are normally pressed inward, so as to hold the points of the jaws apart by means of the springs E, the upper ends of the springs being made to press against the jaws and the lower ends being secured to the frame by the rivets E′. The jaws C are centrally pivoted on pins D, so that they will turn easily, and the jaws are adjusted to fit bolts of a certain size by means of the thumb-screws F, which are mounted in the upper ends of the jaws, and which project inwardly, as best shown in Fig. 1.

A wedge-shaped chisel G is mounted centrally in the frame or casing A, so as to move longitudinally therein, the point of the chisel being made to project from the bottom of the casing opposite the point at which the jaws C meet, and fixed to the back of the chisel is a yoke H, which projects through a slot a' in the back of the frame or casing, and which extends above the top of the casing, being curved inwardly and thickened, as shown at H′, to receive the neck of a screw J, which engages a threaded aperture a^2 in the top wall of the casing, and the lower end of which is loosely engaged with the top of the chisel G, as shown at g. The screw J has a wheel K fixed to its upper end, and the wheel is provided with a crank-handle k, by means of which it is turned, and by turning the wheel K and screw J the yoke H and chisel G will be moved vertically, and as the chisel is forced downward its inclined sides will strike the inner ends of the thumb-screws F, and will thus force the upper ends of the jaws C outward, causing the points C′ of the jaws to swing inwardly and clamp the bolt or other object.

The device is operated as follows: When the bolt L is to be clamped by the grip, the thumb-screws F are turned to adjust the jaws to the size of the bolt-head and the points of the jaws are brought opposite the bolt-head to be clasped. The wheel K is then turned downward, thus forcing the chisel G upon the bolt-head, and the point of the chisel will embed itself in the head of the bolt, as best shown in Fig. 2, the inclined sides of the chisel at the same time forcing the jaws upon the bolt-head, so that the bolt will be firmly held.

The device will be found extremely useful in removing carriage-bolts and tire-bolts from wheels, and may also be used for a great variety of work. To use it instead of pinchers for drawing nails, bolts, or other articles, the thumb-screws F are turned so that the jaws C will clamp the article to be extracted without allowing the chisel to come in contact with the same, and the jaws are then forced together in the manner already described, being made to clamp the article, and it is then withdrawn in the usual way.

The jaws C may be made sharp and the device may be used for cutting off bolts or other articles, and to do this the jaws are forced upon the bolt in the manner described until the bolt is severed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bolt-grip comprising a frame, a pair of jaws pivoted in the frame and provided with converging points, and a screw mechanism for actuating the jaws, substantially as described.

2. A bolt-grip comprising a frame, a pair of jaws pivoted therein and provided with converging points, thumb-screws mounted in the upper ends of the jaws, a wedge-shaped chisel mounted to slide vertically between the thumb-screws, and a screw mechanism for operating the chisel, substantially as described.

3. A bolt-grip comprising a frame, a pair of spring-pressed jaws pivoted in the frame, said jaws having converging points and having inwardly-extending thumb-screws in their upper ends, a wedge-shaped chisel mounted to slide in the frame between the thumb-screws, a yoke fixed to the chisel and made to extend above the frame, and a screw mounted in the yoke and frame and provided with a suitable handle, substantially as described.

4. A bolt-grip comprising a handled frame having a longitudinal slot therein and having recesses on opposite sides, spring-pressed jaws pivoted in the frame, said jaws having converging points, and having thumb-screws mounted in their upper ends and in the recesses of the frame, a wedge-shaped chisel mounted in the frame between the thumb-screws, a yoke fixed to the chisel and extending through the slot and above the frame, a screw mounted in the frame and extending through the yoke, and a hand-wheel fixed to the upper end of the screw, substantially as described.

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Witnesses:
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ALBERT PERRY.