

No. 635,902.

Patented Oct. 31, 1899.

L. T. SNOW.  
BIT BRACE.

(Application filed Jan. 5, 1899.)

(No Model.)

Fig. 1.

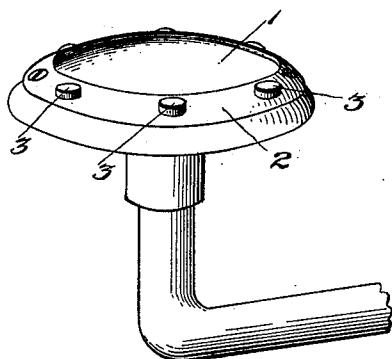


Fig. 2.

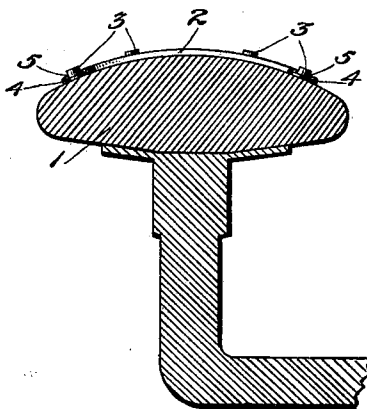
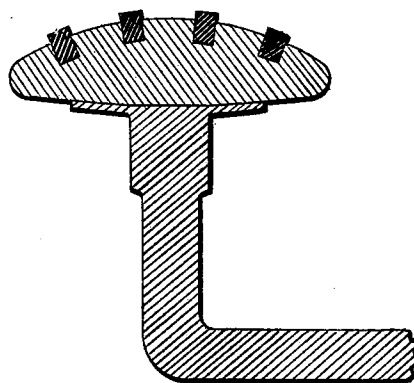


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## BIT-BRACE.

SPECIFICATION forming part of Letters Patent No. 635,902, dated October 31, 1899.

Application filed January 5, 1899. Serial No. 701,188. (No model.)

*To all whom it may concern:*

Be it known that I, LEVI T. SNOW, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bit-Braces; and I do 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.

The invention relates to bit-braces; and the object is to provide the head of a brace with means to prevent it from slipping from engagement with the body of the operator while in use, thus overcoming a serious objection with the common class of braces, as well as saving time and enabling the operator to perform his work in a much more satisfactory manner than could be expected if the head of the brace were continually slipping.

With this object in view the invention consists, broadly, in providing the head of the bit-brace with projections formed of soft flexible or yielding material, which project beyond the surface of the head and coming in contact with the clothing of the operator prevent the head from slipping.

The invention further consists in the various novel ways in which the soft yielding or elastic material may be applied to the head; and, finally, the invention consists in certain features of construction and combination of parts which will be hereinafter fully described, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of that much of a bit-brace as is necessary to illustrate the application of my invention. Fig. 2 is a vertical sectional view. Fig. 3 is a similar view of another modified form.

Referring to Figs. 1 and 2, 1 denotes the head of the bit-brace, to which is attached a frame 2, preferably circular in form and carrying elastic studs 3. The lower ends of these studs are preferably formed with heads 4 of a greater diameter than the apertures 5, through which the studs project, so that when the frame is secured to the head the studs will be prevented from being withdrawn from said frame. By providing a frame for holding the studs I am enabled to easily, quickly, and economically apply my invention to any of the braces now in use, as well as those in the course of manufacture.

In Fig. 3 is shown another form of my invention. In this form I use studs, which are let into the head and project therefrom at various points. These studs may be held in position by glue, cement, or other fastening agency.

In operation, when employed in the usual manner, the head of the brace is in contact with the body of the operator, and the bit is fed to its work by the pressure applied to the head, both hands of the operator being in use, one for rotating the brace and the other for guiding or directing the bit. When thus used, great trouble has heretofore been experienced by the head of the brace slipping, especially when considerable pressure is applied, and this slipping oftentimes unduly enlarges the hole being bored, throws it out of center, and in many cases snaps the bit. By providing the brace-head with soft flexible yielding or elastic shoulders or projections this slipping is prevented.

It will be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A bit-brace head provided with yielding projections that project from said head at different points in its area, thus forming offsets or shoulders adapted to prevent the slipping of the head when pressure is applied to it, substantially as and for the purpose set forth.

2. The combination with a bit-brace head, of a frame movably secured thereto and consisting of a concave ring formed with apertures, and elastic studs projecting through said apertures and having heads of greater diameter than said apertures, said heads being confined between the upper surface of the bit-head and the inner surface of the concave ring, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LEVI T. SNOW.

Witnesses:

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A. H. DONOVAN.