

D. ECKHOFF.
EXTENSION BRACE.
APPLICATION FILED JULY 30, 1912.

1,058,226.

Patented Apr. 8, 1913

FIG. 1.

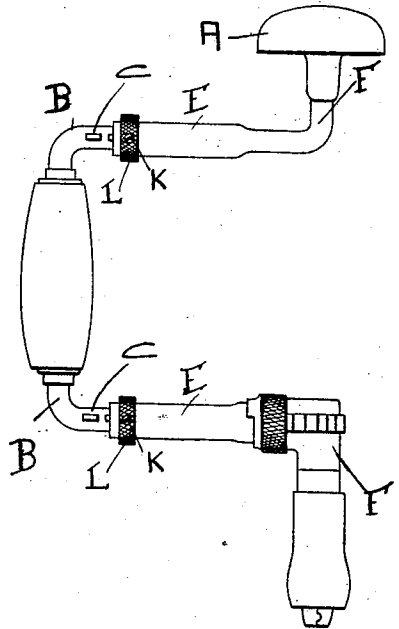


FIG. 2.

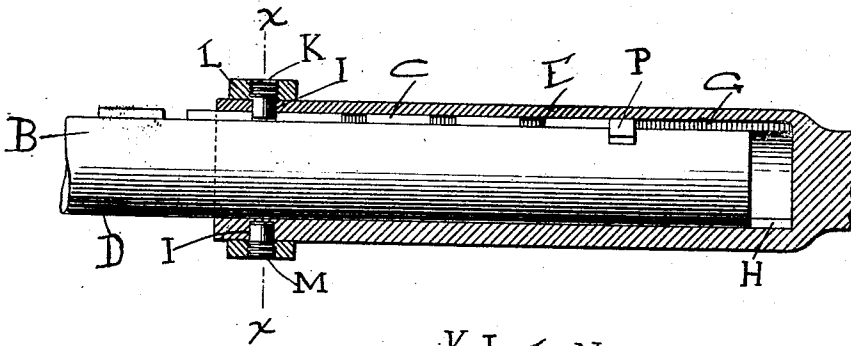
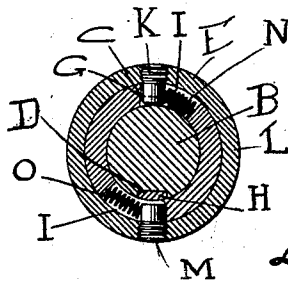


FIG. 3.



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DRUE ECKHOFF, OF RICHTON, MISSISSIPPI.

EXTENSION-BRACE.

1,058,226.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DRUE ECKHOFF, a citizen of the United States, residing at Richton, in the county of Perry and State of Mississippi, have invented certain new and useful Improvements in Extension-Braces, of which the following is a specification.

My invention relates to improvements in extension braces, and more particularly to a type of extension brace having a simple spring impelled locking means for the extension, the said locking means cooperating with a longitudinally disposed interrupted feather presenting a plurality of notches into which the spring impelled locking means automatically slips. The interrupted feather further serves the purpose of a steadying means for the reciprocating extension members. Heretofore this type of tool has not been properly designed, the adjustment means being either ineffective or too complicated, in the former case allowing the parts to slip or become wobbly, a very objectionable and costly fault where highly tempered bits or twist drills are used, the slightest bend often causing them to fracture or receive a permanent "set."

The object of my improvement is to eliminate these objectionable features and to that end I have constructed the form of tool here shown.

In the drawings Figure 1 is an elevation of a tool fitted with my improved extension means. Fig. 2 is a sectional view of one of the extension members on a somewhat larger scale than Fig. 1, showing the construction of the adjustable elements, and Fig. 3 is a sectional view of Fig. 2 on the line X—X.

Referring to the several parts by letters, A is a brace, being fitted with the following of my improved features: Solid stems B provided with interrupted feathers C and key ways D, outside sleeves E integral with the handle F and tool end F', the said sleeves being provided with key ways G and feathers H, the two latter features registering with interrupted feather C and key way D in a manner to admit of a longitudinal movement only. Recesses I are cut into outside sleeves E for the purpose of allow-

ing the locking pins K, secured in the spring impelled locking ring L to move into and out of locked relation with the notches in the interrupted feather C. Pins M also secured to the locking rings L are merely for the purpose of insuring a perfect balance when the springs N coact with the spring O, the said latter mentioned pins and springs being omitted if desired.

An abutment lug P is disposed on each stem B, as shown, near the inner end and at the innermost end of the interrupted feather portion C, in a manner to form, in conjunction with the feather, substantially a letter L when viewed from the top of Fig. 2. The said lug is disposed around the periphery of the stem B, the full width of the recess I and the upper key way G as viewed from Fig. 3. The above mentioned lug is for the purpose of preventing displacement of the parts, but by removing the screw locking pins the tool may be taken down.

I claim:

In an extension brace the combination of an upper handle portion, a lower tool carrying portion and a sliding adjustable central handle portion, the said central handle portion consisting of a solid inner stem the ends of which are disposed at right angles to its vertical gripping portion, hollow sleeves integral with the upper handle portion and the lower tool carrying portion respectively, key ways and interrupted feathers upon the solid stem portions, key ways and feathers in the hollow sleeve portions registering with the key ways and interrupted feathers of the solid stem portions, the said hollow sleeves being slidably mounted upon the solid stem portions, and spring impelled locking rings mounted upon the hollow sleeve portions, the said rings having inwardly protruding locking pins adapted to engage the said interrupted feather portions.

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

DRUE ECKHOFF.

Witnesses:

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