

No. 854,742.

PATENTED MAY 28, 1907.

C. E. HILL.
ADJUSTABLE EXTENSION BIT HOLDER.

APPLICATION FILED JAN. 12, 1907.

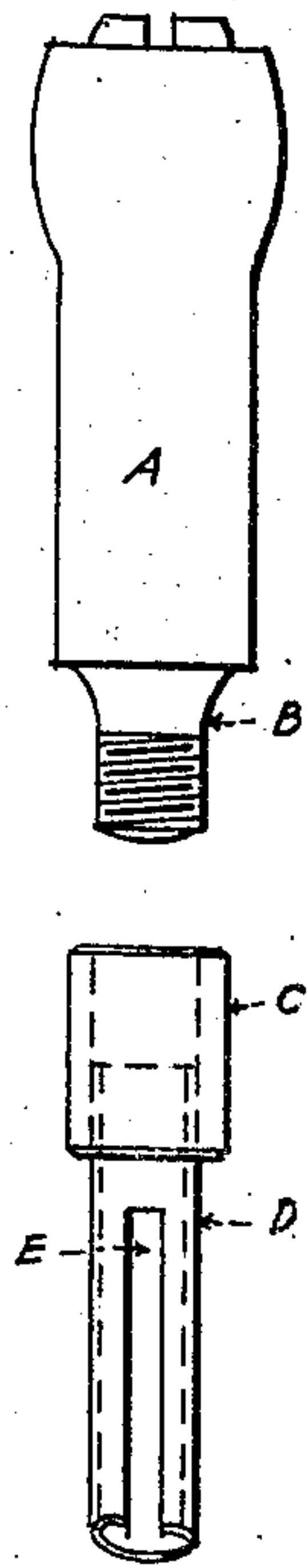


FIG. 1.

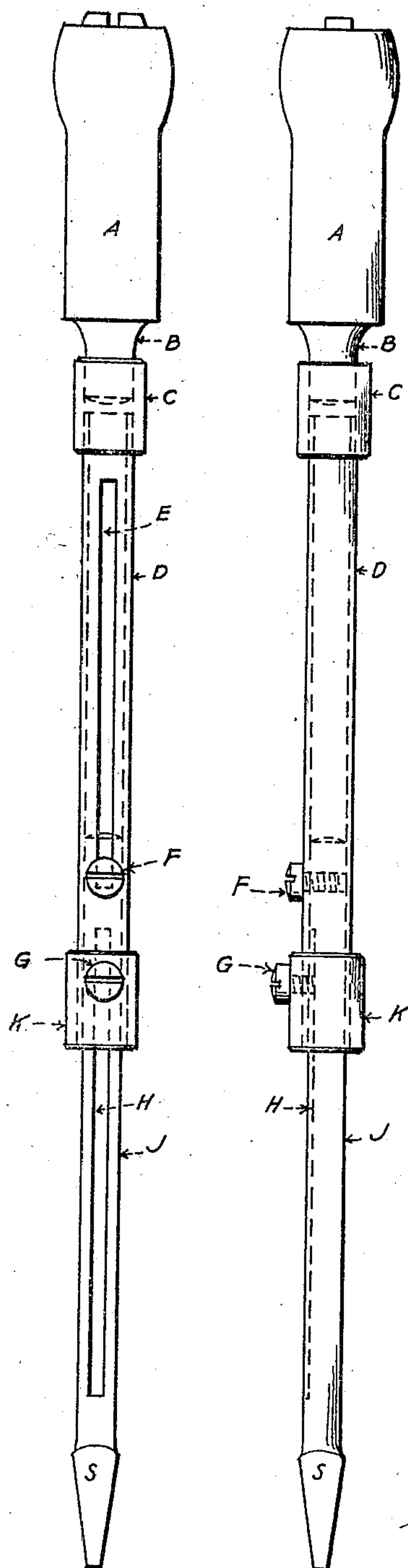


FIG. 2.

FIG. 3.

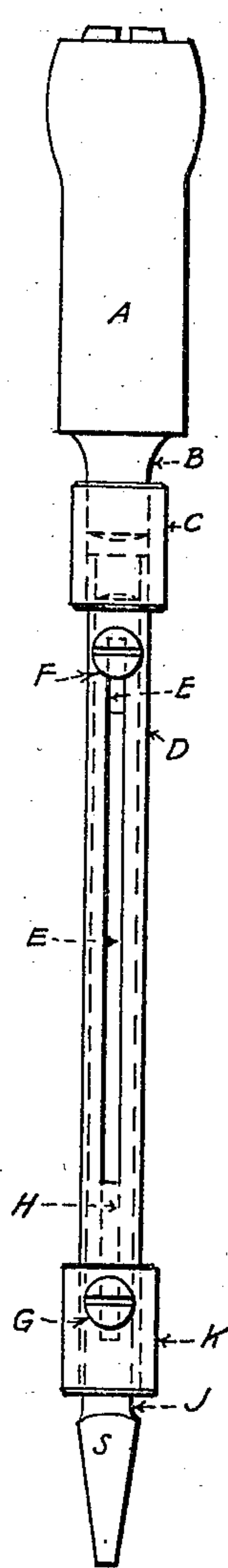


FIG. 4.

Witnesses

L. F. Dakin
H. Chester Maple

Charles E. Hill ^{Inventor}

UNITED STATES PATENT OFFICE.

CHARLES E. HILL, OF FOSTER, OHIO.

ADJUSTABLE EXTENSION-BIT HOLDER.

No. 854,742.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed January 12, 1907. Serial No. 351,943.

To all whom it may concern:

Be it known that I, CHARLES E. HILL, a citizen of the United States, residing at Foster, in the county of Warren and State of Ohio, have invented certain new and useful Improvements in Extension Shanks for Auger-Bits, of which the following is a specification.

This invention is an extension-shank for auger-bits and the like, to enable the bit to be used in places which would otherwise be inaccessible.

The object of the invention is to provide an extension-shank having a wide range of adjustment, and which can be attached to any ordinary bit-brace.

In the accompanying drawing, Figure 1 is an elevation of a portion of the extension-shank showing its parts separate. Figs. 2 and 3 are elevations of the complete shank taken from different sides and showing it extended to its full limit. Fig. 4 is an elevation showing the shank closed.

Referring specifically to the drawing, the extension-shank is in two telescoping sections indicated at D and J, respectively. The former is a tube and the latter is a stem, which is slidably mounted in the tube. The outer end of the stem has a tang S for attachment to a brace. To the ends of the tube D are brazed or otherwise secured collars C and K, respectively. The collar C projects beyond the end of the tube and has a threaded bore into which the threaded stem B of a chuck A screws. The chuck receives the auger-bit, screw-driver, or other tool. Any other suitable tool-holder may be fitted to the collar.

The stem J has a longitudinal groove H, and the tube D has a longitudinal slot E. A set-screw G is tapped through the collar and

the tube D and seats in the groove H. Another set-screw F passes through the slot E and is tapped into the stem J within the tube D.

Upon loosening the set-screws F and G, the stem J is free to slide back and forth in the tube D and the desired adjustment can be made, after which the set-screws will be tightened which will securely hold the parts in adjusted position with no danger of side play or wobbling.

The extender will be found useful in places that cannot be reached by an ordinary bit, and when not in use it can be closed up into a small and compact form as shown in Fig. 4 for convenience in carrying it.

I claim:—

1. An extension-shank for bits and the like comprising a longitudinally slotted tube having at one end tool-holding means and open at the other end, a longitudinally grooved stem entering the open end of the tube and slidable therein, a set-screw tapped through the tube and seating in the groove and a set-screw carried by the stem and working in the slot of the tube.

2. An extension-shank for bits and the like comprising a tube open at one end, a collar fixed to the opposite end of the tube and projecting therefrom, and having a threaded bore to receive a tool-holder, a stem entering the open end of the tube and slidable therein, and means for holding the tube and stem at adjustment.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES E. HILL.

Witnesses:

L. F. DAKIN,

W. CHESTER MAPLE.