No. 756,197. PATENTED MAR. 29, 1904.

A. JARVIS & W. H. LANE.

TOOL ATTACHMENT.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.

Fig. 1.

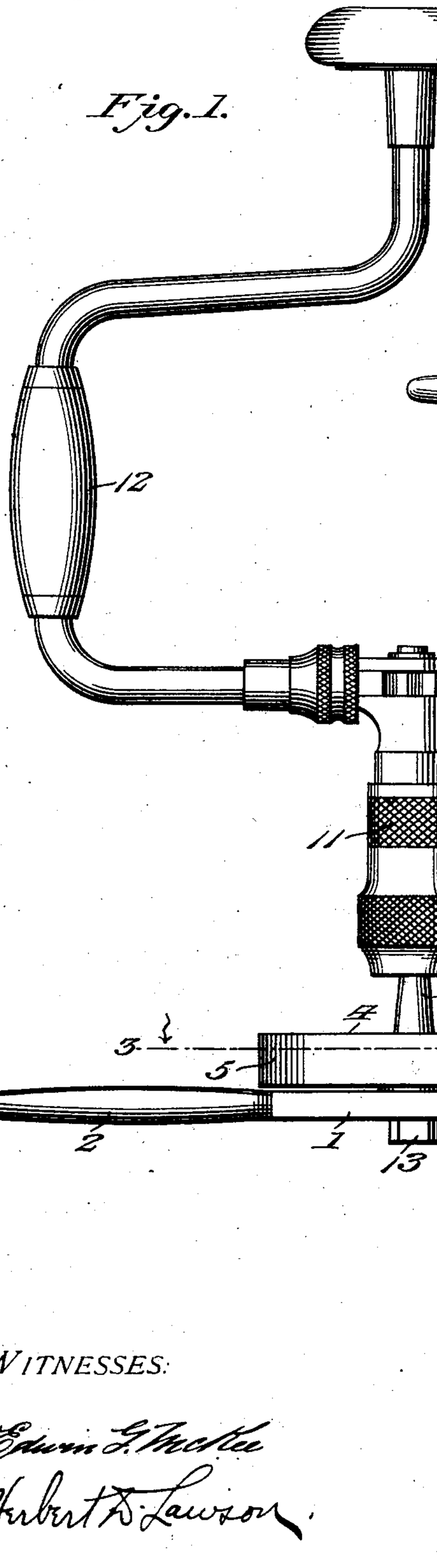


Fig. 2.

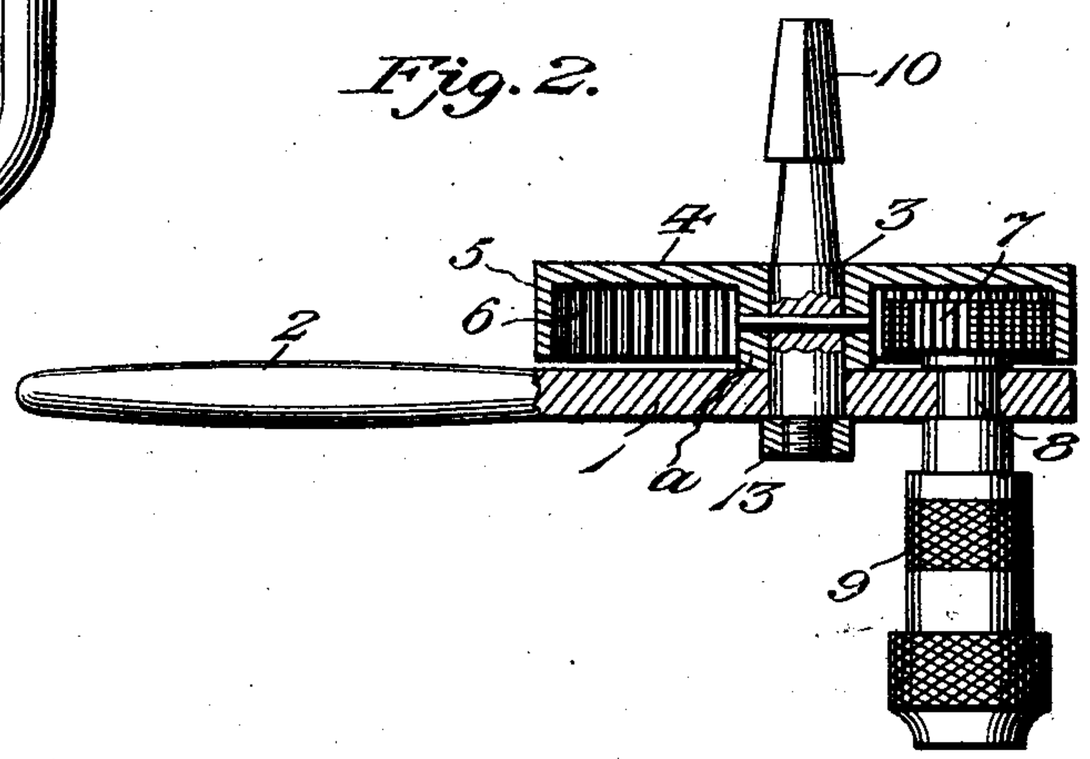
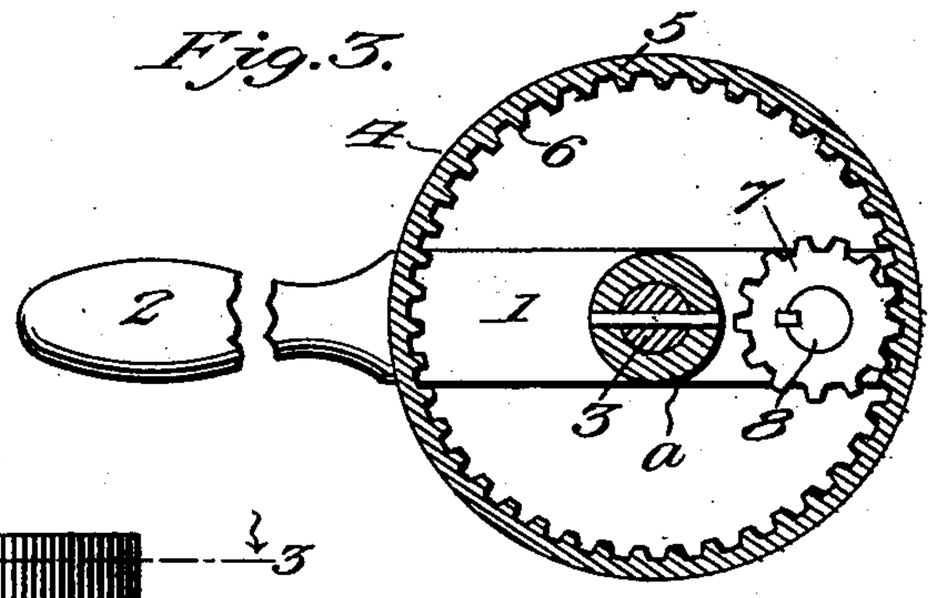


Fig. 3.



WITNESSES:

Edwin L. Thacker

Hubert D. Lawson.

INVENTORS

Albert Jarvis and

William H. Lane

BY

Victor J. Evans Attorney

No. 756,197. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

ALBERT JARVIS AND WILLIAM H. LANE, OF BERKLEY, VIRGINIA.

TOOL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 756,197, dated March 29, 1904.

Application filed February 7, 1903. Serial No. 142,369. (No model.)

To all whom it may concern:

Be it known that we, ALBERT JARVIS and WILLIAM H. LANE, citizens of the United States, residing at Berkley, in the county of Norfolk and State of Virginia, have invented new and useful Improvements in Tool Attachments, of which the following is a specification.

This invention relates to new and useful improvements in bit-holding attachments for braces; and its object is to provide a simple and durable device of this character by means of which a bit connected to said attachment may be revolved at a high speed during the revolution of the brace.

A further object is to so arrange the socket of this attachment as to hold the bit at a point adjacent to one edge of the attachment, whereby said bit may be held close to a surface parallel therewith.

With the above and other objects in view the invention consists in providing a handle upon which is revolubly mounted a cap having teeth on its inner surface. A shank extends from the center of this cap and is journaled at one end within the handle, while its opposite end is adapted to be detachably secured within the bit-holding socket of a brace. A gear is arranged under the cap, and the teeth thereof are adapted to mesh with the teeth in the cap. This gear is secured to a short shaft journaled within the handle and having a bit-socket at the lower end thereof.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is an elevation showing our bit-holding attachment in position upon a brace. Fig. 2 is a central vertical section through the attachment detached; and Fig. 3 is a section on line 3 3, Fig. 1.

Referring to the figures by numerals of reference, 1 is a block having a handle 2 extending therefrom, and journaled within the center of this block is a shaft 3, having an aperture therein, which extends through and is secured to the center of a cap 4. Depending centrally of and formed integral with the cap is a sleeve *a*, having alining apertures. A key is adapted to pass through the aperture of the shaft and the apertures of the sleeve, thereby rigidly securing the cap 4 to the shaft 3. It is apparent through virtue of the depending sleeve that the cap 3 is prevented having any movement on the shaft. The side 5 of this cap is provided with teeth 6 upon its inner surface adapted to mesh with a gear 7. This gear is secured to the upper end of a small shaft 8, journaled within the outer end of block 1 and having an ordinary bit-holding socket 9 secured to the lower end thereof. An angular head 10 is provided at the upper end of the shaft 3, whereby the same may be readily secured within a bit-holding socket 11 of a brace 12 of ordinary construction, while the opposite end of said shaft is provided with any suitable means, as a nut 13, whereby accidental displacement thereof is prevented.

In operation the head 10 is placed within the socket 11 of brace 12, and a suitable bit is secured within the socket 9 of the attachment. The handle 2 is then grasped in one hand and handle 14 of the brace in the other. The brace 12 is then revolved by means of the handle 14, and as the block 1 is held stationary by means of the handle 2 the gear 7 thereon will be rapidly revolved by the teeth within the cap 4. Rotary motion is thus imparted to the bit secured within the socket 9. As shaft 8 is arranged close to the outer end of block 1, it is obvious that a bit within the socket can be brought close to a surface parallel therewith, thereby overcoming a great disadvantage which has heretofore been met with in high-speed attachments of this character. By arranging the gear 7 within the cap 4 the teeth upon said cap and gear are protected from dust, &c., and a smoothly-running device is thus obtained. The device is extremely simple, light, and durable, and inexpensive in construction.

In the foregoing description we have shown the preferred form of our invention; but we do not limit ourselves thereto, as we are aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and we therefore reserve

the right to make such changes and alterations as fully fall within the scope of our invention.

Having thus described the invention, what is claimed as new is—

The combination with a block having a handle at one end thereof, of a shaft, having an aperture, journaled therein and adapted to be connected to the socket of a brace, a cap having a depending central sleeve integral therewith, said sleeve having apertures in alinement and being adapted to embrace the shaft, a key passing through the apertures in the sleeve and shaft, teeth upon the inner surface of the side of the cap thereof, said cap bearing upon the block, a shaft journaled within the block near the outer end thereof, a gear upon one end of the shaft and arranged under and eccentric to said cap, said gear being adapted to mesh with the teeth in the cap, and a socket secured to and revoluble with the shaft of said eccentric gear.

In testimony whereof we affix our signatures in presence of two witnesses.

ALBERT JARVIS.
WILLIAM H. LANE.

Witnesses:
J. F. HUTCHINGS,
PHILIP DOZIER.