(No Model.)

A. McDOUGALL.

COMBINATION SCREW DRIVER, AUGER, AND COUNTERSINK.

No. 524,906. Patented Aug. 21, 1894.

Fig. 1.

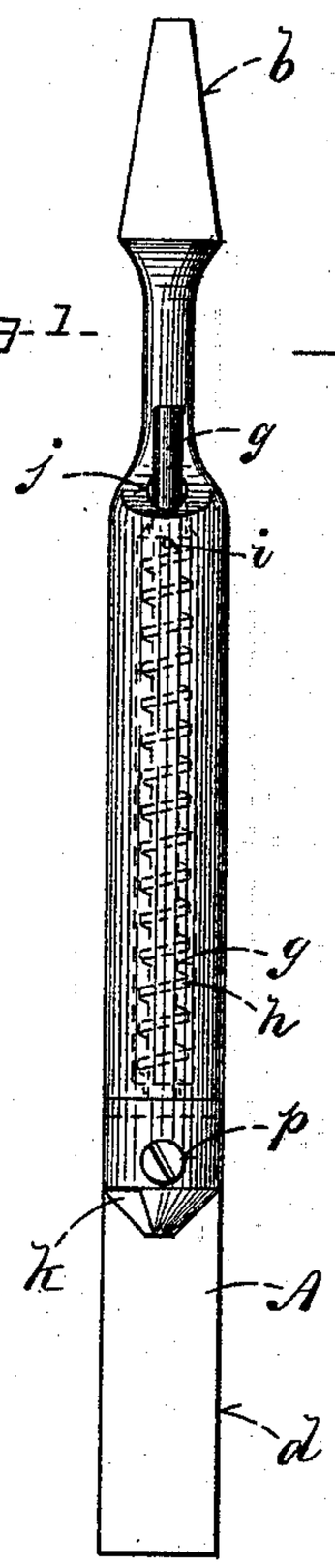


Fig. 3.

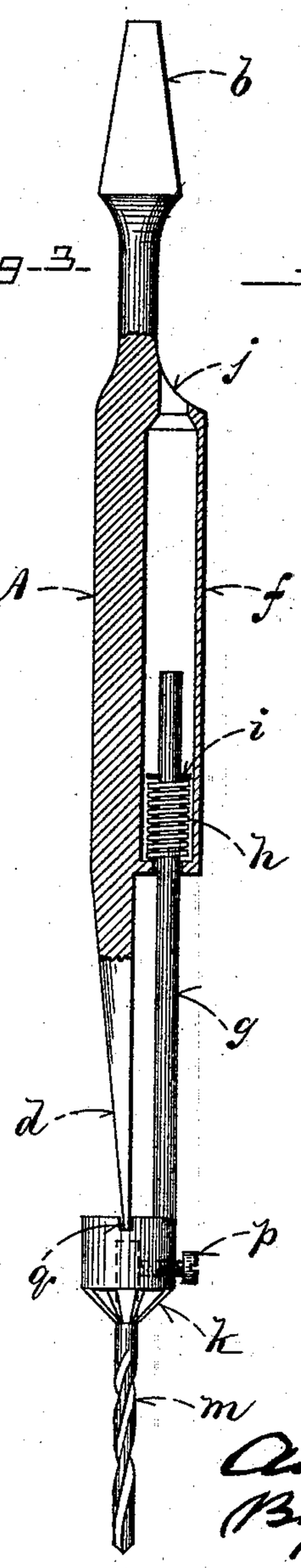
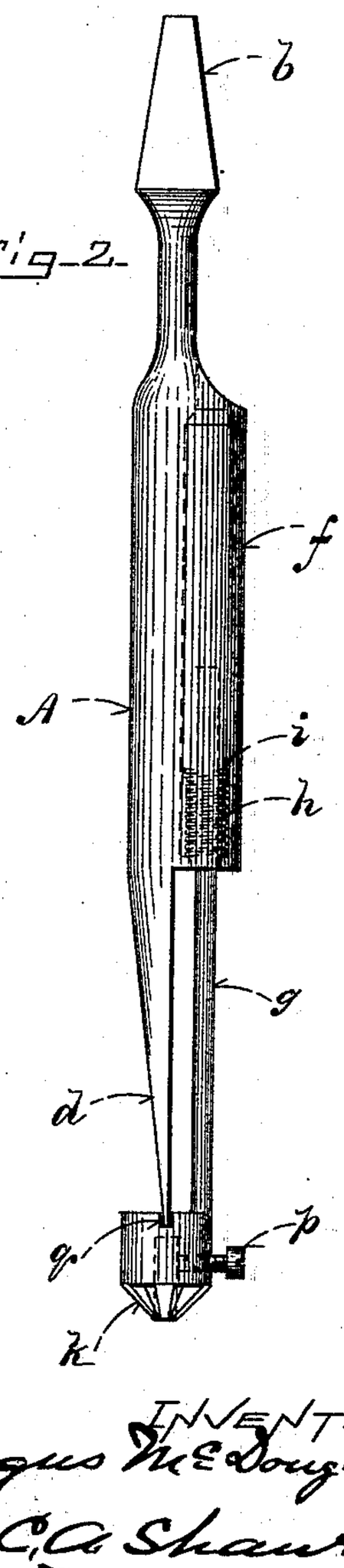


Fig. 2.



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ANGUS McDOUGALL, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO LUTHER E. LEWIS, OF SAME PLACE.

COMBINATION SCREW-DRIVER, AUGER, AND COUNTERSINK.

SPECIFICATION forming part of Letters Patent No. 524,906, dated August 21, 1894.

Application filed January 6, 1894. Serial No. 495,946. (No model.)

To all whom it may concern:

Be it known that I, ANGUS McDOUGALL, of Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in a Combination Screw-Driver, Auger, and Countersink, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my improved tool, the auger being detached. Fig. 2 is a side elevation of the same showing the counter-sink projected; and Fig. 3 a vertical section with the auger in position.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to a combination tool for use with bit stocks in which a screw-driver, auger and countersink may be separately employed without removing the bit; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simple, cheap and effective device of this character.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the body of the tool which is provided with the ordinary bit-head, *b*, at one end, its opposite end being reduced to form a screw-driver, *d*, of the usual shape. One face of the body is provided with a vertical or longitudinally arranged chamber, *f*. A rod, *g*, is fitted to slide through the bottom of said chamber in parallelism with the screw-driver said rod being pushed inwardly by a spring, *h*, which is interposed between a pin, *i*, on the rod and the chamber bottom. The upper end of the chamber is open at *j*, so that the end of the rod may project therethrough when housed. To the outer end of the rod and projecting laterally therefrom a counter-sink, *k*, is secured or formed integral therewith. Said counter-sink has a vertical opening through its center to receive the head of an auger, *m*, which may be secured therein by a set-screw, *p*.

The upper edge of the counter-sink is slotted transversely at, *q*. When the rod, *g*, is housed as in Fig. 1, the countersink engages the lower end of the chamber, *f*, and the auger may remain therein or be removed as desired. The implement is now in condition to be employed for the usual purposes of a screw-driver.

To use the auger and counter-sink the rod, *g*, is drawn outward compressing the spring, *h*, said rod being then rotated until the countersink passes under the edge of the screw-driver which enters the slot, *q*, and is held by the tension of the spring. The tool may now be operated in the usual manner of an auger the rotation of the rod independently of the screw-driver being prevented by said slot. By releasing the counter-sink from the driver edge and rotating it until out of engagement, the spring, *h*, will drive the rod, *g*, inward until the counter-sink engages the chamber. By this arrangement of parts the necessity of removing the bit from the stock and substituting for each form of tool is avoided. I do not confine myself to using a chamber, *f*, as any device which will guide the spring-pushed rod on the shank or body of the screw-driver may be employed.

Having thus explained my invention, what I claim is—

1. A screw-driver in combination with a spring-pushed rod fitted to slide and rotate on one face thereof and bearing a countersink tool at its outer end, said tool being adapted to be engaged with the driver-point substantially as and for the purpose set forth.

2. A screw-driver in combination with a spring-pushed rod fitted to slide longitudinally thereon and having a head projecting laterally from its outer end, said head being adapted to receive a tool and engage with the driver-point.

3. A screw-driver in combination with a spring-pushed rod fitted to slide longitudinally thereof, a slotted and socketed head on

the outer end of said rod, said slot being arranged to receive the driver-point and a tool detachably secured in said socket.

4. The screw-driver provided with a longitudinally arranged chamber, as *f*, in combination with a spring-pushed rod, *g*, fitted to slide in said chamber and provided with the counter-sink, *k*, having the slot, *q;* the auger, *m*, in said counter-sink and devices for detachably securing said auger.

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