

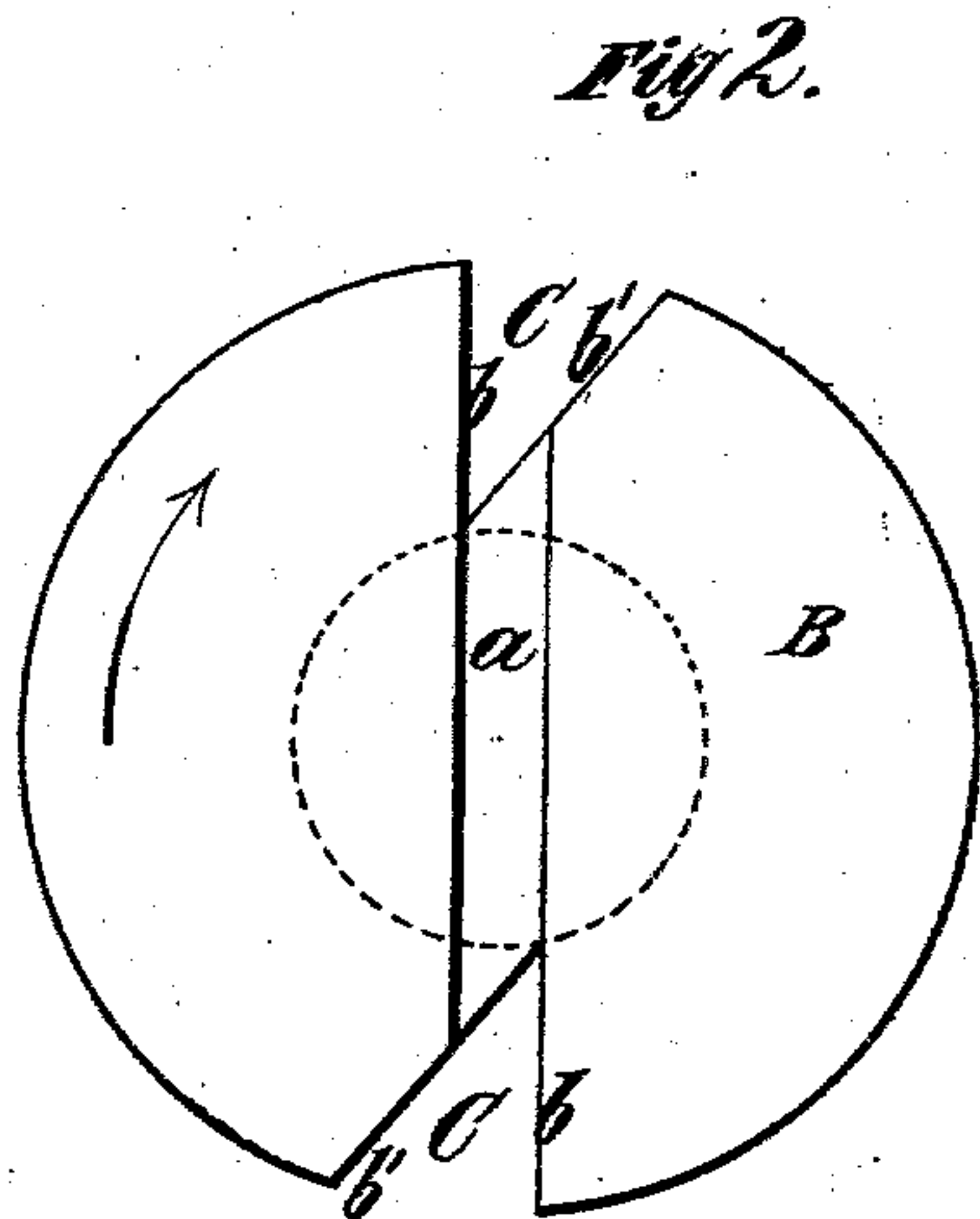
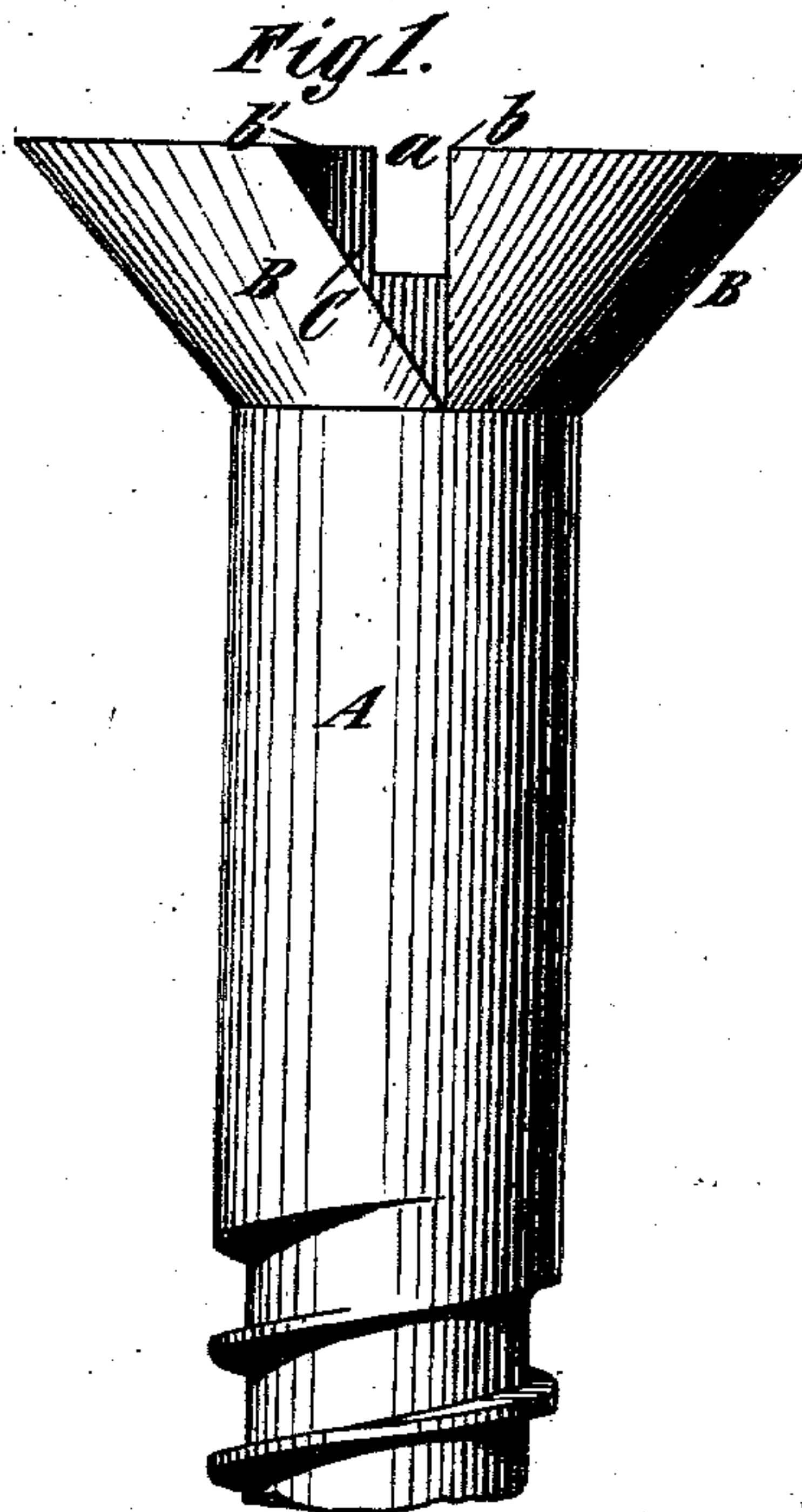
(Model.)

J. W. CAMPBELL.

WOOD SCREW.

No. 246,368.

Patented Aug. 30, 1881.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES W. CAMPBELL, OF BROOKLYN, NEW YORK.

WOOD-SCREW.

SPECIFICATION forming part of Letters Patent No. 246,363, dated August 30, 1881.

Application filed February 23, 1881. (Model.)

To all whom it may concern:

Be it known that I, JAMES W. CAMPBELL, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Wood-Screws, of which the following is a specification.

The principal object of my invention is to provide a wood-screw which may be constructed so as to cut its own countersink without materially increasing its cost.

To this end the invention consists in a countersinking wood-screw having across the conical head a nick, the walls of which are mainly parallel, but of which walls each is divergent from the other near one end, to give clearance to the chips made by a cutting-edge at the extremity of the straight wall opposite, the planes of the several sections of wall being all parallel with the longitudinal axis of the screw, though not parallel with one another.

In the accompanying drawings, Figure 1 represents a side view of the head and upper portion of a screw made in accordance with my invention; and Fig. 2 represents a plan or top view of the head, both figures being drawn upon an enlarged scale to clearly illustrate the invention.

Similar letters of reference designate corresponding parts in both figures.

A designates the body of the screw; and B designates the conical head thereof, in which is a nick, *a*, into which a screw-driver may be inserted for turning the screw. The two sides or walls of the nick *a* are parallel throughout the greater part of their length, but diverge from each other at each end of the nick, the extremity of the straight side or wall *b* forming a cutting-edge, and the divergent or oblique side or wall *b'* giving clearance to the chips made by the opposite cutting-edge.

In the sides of the head B are two notches, C, which are diametrically opposite each other at opposite ends of the nick, and the sides of

the notches form continuations of the sides or walls *b b'* of the nick, as clearly seen in Fig. 1. It will be observed that the walls *b b'* lie in planes which are all parallel with the longitudinal axis of the screw, although not parallel with each other.

In screwing in the screw it is, of course, turned in the direction of the arrow, Fig. 2, and the cutting-edge of each wall *b* forms the countersink, while the oblique or divergent wall *b'* affords ample clearance for the discharge of chips and shavings.

The notches C may be very readily formed by two milling-saws of proper transverse sectional form, moving in lines parallel with the longitudinal axis of the screw and operating in conjunction with the nicking-saw, and when so formed the notches add very little to the cost of the screws. Inasmuch as only two notches are formed in the head, the conical bearing-surface of the head is very little impaired.

The most important merit of my invention consists in the facility with which the notches above described can be cut in the screw-head as compared with other notches cut or otherwise formed in screw-heads to enable them to cut their own countersink.

What I claim as my invention, and desire to secure by Letters Patent, is—

A countersinking wood-screw having a conical head with a nick the walls of which are mainly parallel, but of which walls each is divergent from the other near one end to give clearance to the chips made by the cutting-edge of the straight wall opposite, the planes of the several sections of wall being all parallel with the longitudinal axis of the screw, though not parallel with one another, substantially as specified.

J. W. CAMPBELL.

Witnesses:

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