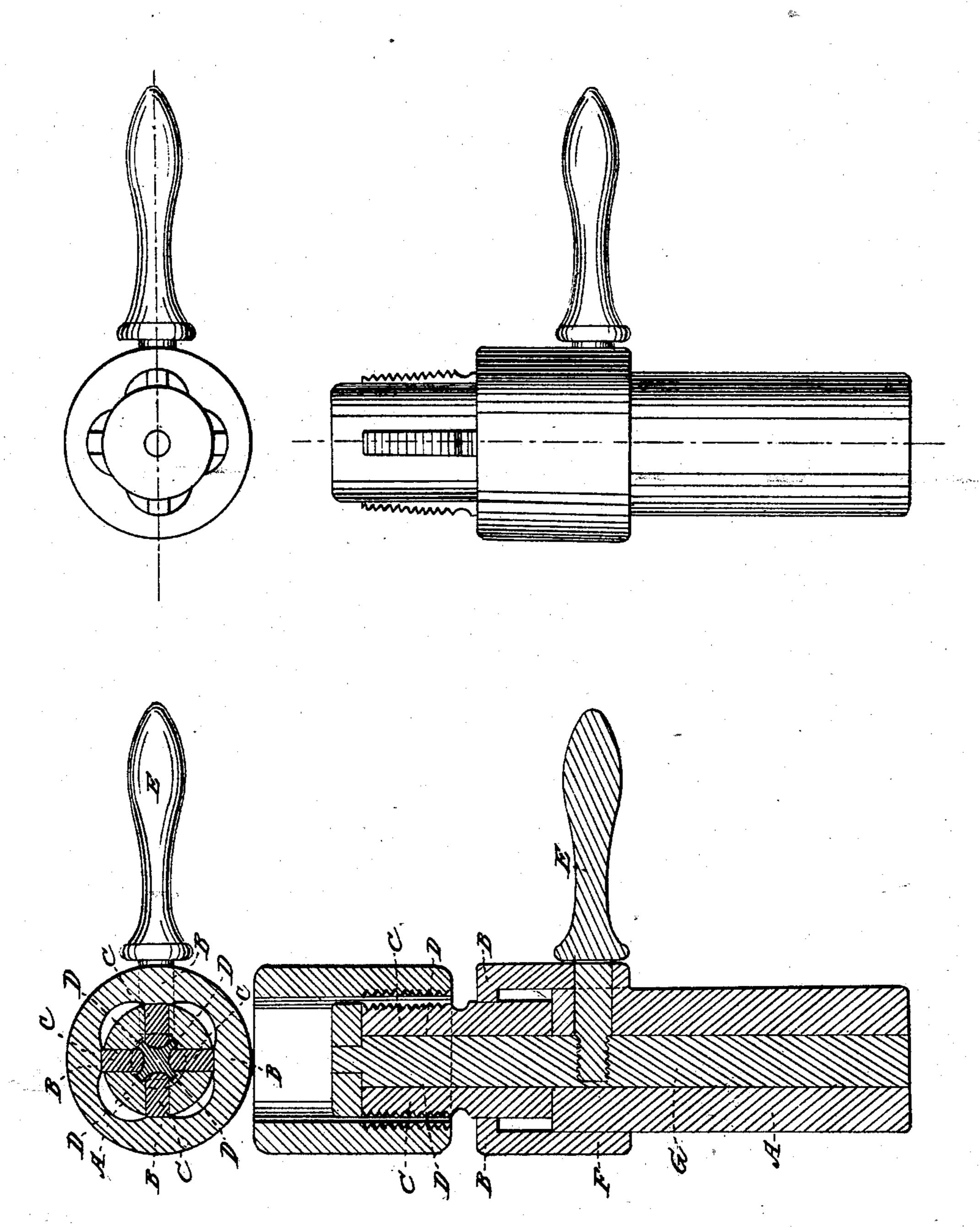
## RIDER & WIGGIN.

Screw Tap.

No. 66,629.

Patented July 9, 1867.



Witnesses:

A & bearith Charle Charle. John F. Ponder. George O Miggin

## Anited States Patent Pffice.

## JOHN F. C. RIDER AND GEORGE B. WIGGIN, OF SOUTH NEW MARKET, NEW HAMPSHIRE.

Letters Patent No. 66,629, dated July 9, 1867.

## IMPROVED SCREW-TAP.

The Schedule reserred to in these Fetters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, John F. C. Rider and George B. Wiggin, of South New Market, in the county of Rockingham, and State of New Hampshire, have invented a new and useful improvement in Screw-Taps; and Rockingham, and State of New Hampshire, have invented a new and useful improvement in Screw-Taps; and

we do hereby declare that the following is a full and exact description.

The shank A, in the end of which there are four mortises for receiving the cutters of the tap C C C. The shank A, in the end of which there are four mortises for receiving the cutters of the tap C C C. The centre-cams D D D, on the end of mandrel G, hold the cutters, when thrown out to their extreme point, in position to tap the hole. The ring F, with cams B B B cut in the end thereof, releases the cutters from the thread when upon their extreme contracting point. The handle E connects the ring F with the mandrel G, through a slot in the shank A.

Now, by turning the ring F in one direction, by means of the handle E, the cutters are thrown out in position to tap the hole; by turning the ring back to its original position, the cutters are contracted, so as to

be released from the thread and withdrawn from the hole without reversing the tap.

Claim.

The combination of the ring F with cams BBB; the mandrel G with cams DDD and cutters CCCC, or its equivalent, substantially as shown and described, so that by turning ring F by handle E the cutters of the tap will be released from the thread in the hole, and thus allow the tool to be withdrawn, as specified.

JOHN F. C. RIDER, GEORGE B. WIGGIN.

Witnesses:

A. J. LEAVITT,

C. A. CHOATE.