

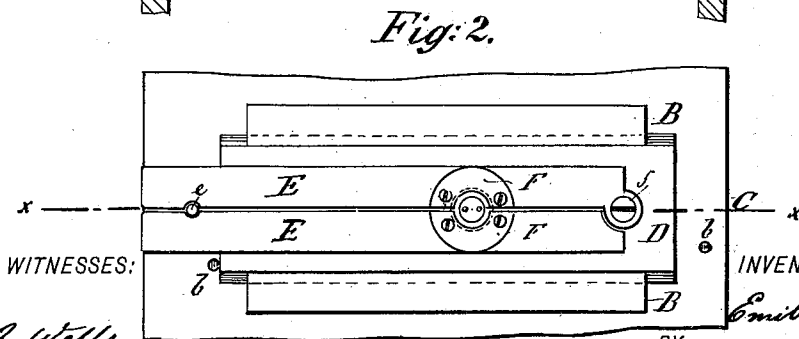
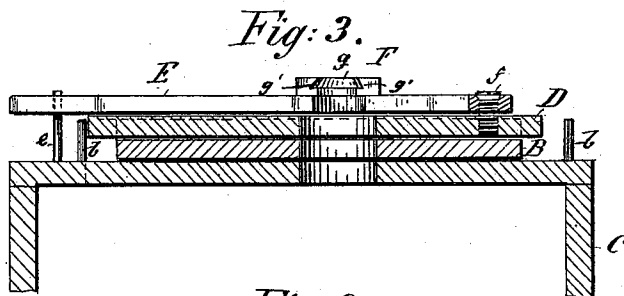
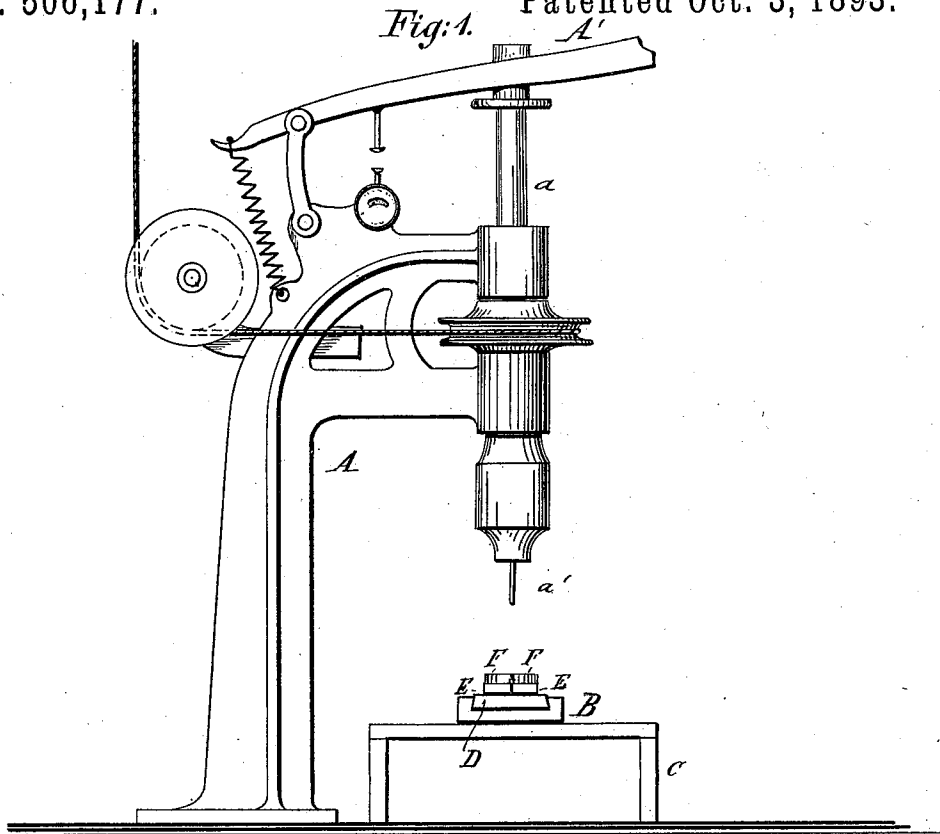
(No Model.)

E. KOENIG.

DRILLING MACHINE FOR BUTTONS OF MOTHER OF PEARL.

No. 506,177.

Patented Oct. 3, 1893.



WITNESSES:

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EMIL KOENIG, OF HICKSVILLE, ASSIGNOR TO EMIL SCHWEINBURG, OF NEW YORK, N. Y.

DRILLING-MACHINE FOR BUTTONS OF MOTHER-OF-PEARL.

SPECIFICATION forming part of Letters Patent No. 506,177, dated October 3, 1893.

Application filed November 1, 1892. Serial No. 450,650. (No model.)

To all whom it may concern:

Be it known that I, EMIL KOENIG, a citizen of the United States, and a resident of Hicksville, in the county of Queens and State of New York, have invented certain new and useful Improvements in Drilling-Machines for Buttons of Mother-of-Pearl, of which the following is a specification.

My invention has reference to improvements in drilling machines for drilling holes into buttons and the invention consists of a simple attachment to such machines, by means of which two hole buttons can be produced, *i. e.* two holes are successively drilled into the buttons, the machine being illustrated in the accompanying drawings, hereinafter described, and subsequently pointed out in the claims.

Figure 1 is an elevation of a drilling machine with my improved attachment for drilling two hole buttons. Fig. 2 is a top view of the said attachment, and Fig. 3 is a vertical section of the same on line *x x* Fig. 2.

Similar letters of reference indicate corresponding parts.

A in the drawings represents a drilling machine of the usual construction and B is a carriage-bed attached to a hollow supporting frame C. In the said carriage-bed is guided a carriage D to which two blades E E are pivoted by means of a pivot-pin or screw *f*, so that the blades can be moved to or from each other.

The supporting frame, as well as the carriage-bed and the carriage are each provided with a circular opening which openings correspond with each other, as shown in Fig. 3.

The swinging blades E have each a semi-circular excavation, so that, when both blades are swung together, as shown on Fig. 2, a circular opening is formed, that likewise corresponds with the openings in the carriage, the carriage-bed, and the supporting frame. Each blade E is furthermore provided with a semi-circular cap F each having a round excavation and an upwardly tapering notch *g*, somewhat larger, than the excavation, so that a shoulder *g'* is formed in each cap, as clearly shown in Fig. 3. The excavations of the caps also correspond with the aforesaid openings

in the blades, the carriage, the carriage-bed and the supporting frame. The stop-pin *e* placed between the shanks E E serves to secure the proper position of the blades when they are swung together. The two stop-pins *b b* attached to the supporting frame C, have the purpose to limit the space in which the carriage D is moved to and fro.

The button to be provided with two holes is placed upon the shoulders *g' g'* of the notches *g g* of the caps F F after the blades E E are moved somewhat apart and then the blades are moved together, the stop-pin *e* serving that the blades are in the proper position so that the excavations in the caps are in line with the openings as aforesaid. The button is thus firmly held within the caps. When the carriage D is so shifted that it abuts against one of the stop-pins *b b*, the spindle *a* of the drilling machine is lowered by means of the lever A' and the drill pierces the button on the respective spot. After one hole is thus drilled into the button, the spindle with the drill is lifted and the carriage moved against the second pin *b* and then the action of the drill, as described, repeated. When thus the second hole is drilled into the button on the proper spot, the spindle with the drill is lifted again, the blades E E are swung apart and the button, provided with two holes, released from the shoulders of the caps. The button drops then through the openings in the caps, the blades, the carriage, the carriage-bed, and the supporting frame and is there collected in a suitable receptacle. A second button is then placed into the caps F F and the described action repeated, and so on with each following button.

By means of the described attachment the buttons are provided with holes in a very simple manner and the work is easier and quicker done than with the drilling machines now in use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a drilling machine for buttons, the combination of a carriage in a carriage-bed with swinging blades pivoted to the carriage and semi-circular caps attached to the

blades, the caps being provided with tapering notches, substantially as set forth.

2. In a drilling machine for buttons, the combination of a carriage in a carriage-bed
5 attached to a hollow supporting frame, with swinging blades pivoted to the carriage, caps having tapering notches to receive the button to be drilled, the caps, blades, the carriage, carriage-bed and the supporting frame being
10 provided with corresponding openings and

stop pins, whereby the shifting motion of the carriage is limited, substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 28th day of October, A. D. 1892.

EMIL KOENIG.

Witnesses:

CHARLES KARP,
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