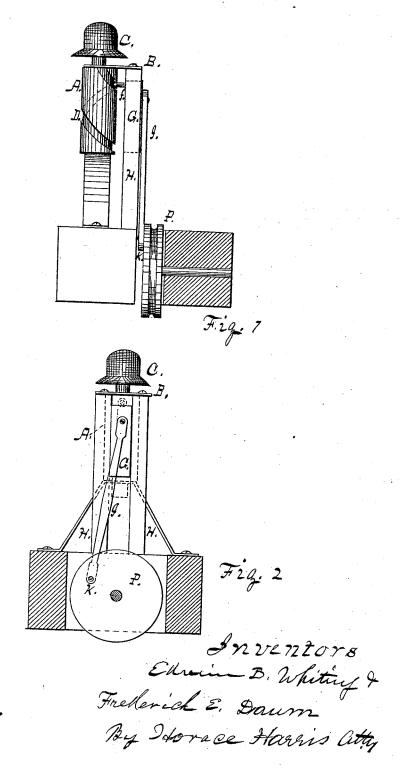
## E. B. WHITING & F. E. DAUM. Hat-Pouncing Machine.

No. 196,410.

Patented Oct. 23, 1877.



With Darling Thou Of Giser

## UNITED STATES PATENT OFFICE.

EDWIN B. WHITING AND FREDERICK E. DAUM, OF ORANGE, NEW JERSEY.

## IMPROVEMENT IN HAT-POUNCING MACHINES.

Specification forming part of Letters Patent No. 196,410, dated October 23, 1877; application filed October 3, 1877.

To all whom it may concern:

Be it known that we, EDWIN B. WHITING and FREDERICK E. DAUM, of Orange, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Hat-Pouncing Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation, and Fig. 2 is a

front elevation of the machine.

The object of our invention is to reduce the complication and expense of producing the vibratory motion of a hat-pouncing machine.

This we do by means of an upright shaft or cylinder, A, on the top of which, and coming above a table, B, is a pouncing-block, C. This shaft is cut with a spiral groove, D, and in this groove is fitted to work a roller-pin, f, attached to a head-block, G. This block slides in the ways H, and is moved perpendicularly by the pitman I, connected by the crank-pin K to the driving-wheel P. Thus the revolution of the wheel, moving the slide up and down, causes the pin f to traverse the length

of the groove D and back again, which gives a vibratory motion to the hat-block C.

This spirally-grooved shaft may be moved by some other device than the crank and pitman as that it may be operated by the end of a lever or arm, with a pin like the pin f working in the groove, having an up and down motion.

The principle of the invention is in the spirally-grooved shaft with some point made to move in the groove, giving a reciprocating motion to the pouncing-block; therefore,

What we claim as our invention, and de-

sire to secure by Letters Patent, is—

The shaft A, having the spiral groove D, in combination with the hat-block C and moving pin f, substantially as and for the purpose specified.

EDWIN B. WHITING. FREDERICK E. DAUM.

Witnesses:

HORACE HARRIS, WM. H. DARLING.