(No Model.)

B. PAYNE.

BUTTON CHUCK.

No. 248,210. Patented Oct. 11, 1881.

Fig. 1.

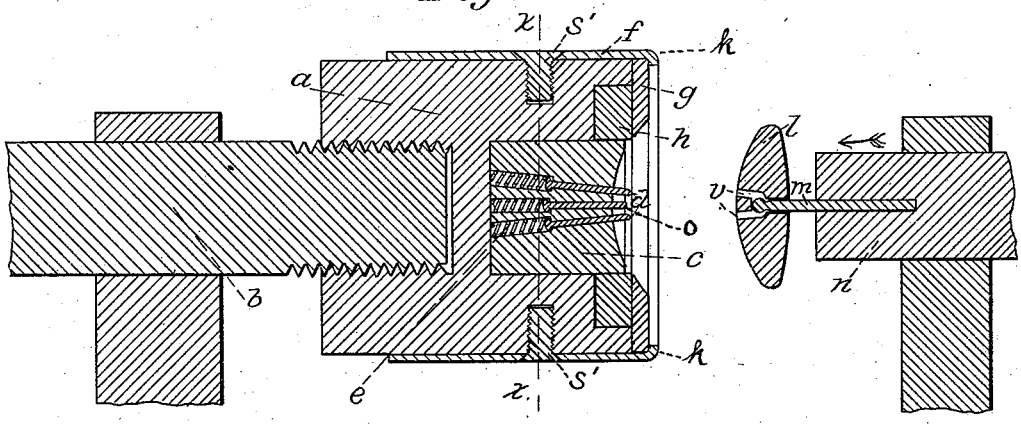


Fig. 2.

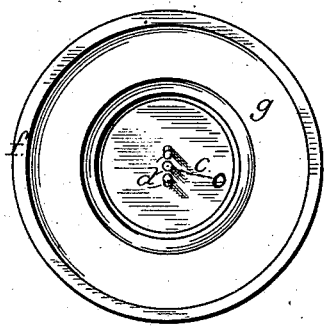
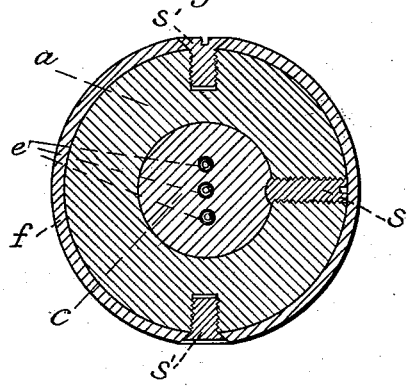


Fig. 3.



Witnesses.
Chas. L. Burdett.
James J. Greene.

Inventor.
Brigham Payne
By W. E. Simonds
Atty

UNITED STATES PATENT OFFICE.

BRIGHAM PAYNE, OF HARTFORD, CONNECTICUT.

BUTTON-CHUCK.

SPECIFICATION forming part of Letters Patent No. 248,210, dated October 11, 1881.

Application filed March 16, 1881. (No model.)

To all whom it may concern:

Be it known that I, BRIGHAM PAYNE, of Hartford, in the county of Hartford and State of Connecticut, have invented a certain new and useful Improvement in Button-Chucks, of which the following is a description, reference being had to the accompanying drawings, where—

Figure 1 is a longitudinal section through a machine embodying my invention. Fig. 2 is a face or end view of my improved chuck. Fig. 3 is a transverse section through my improved chuck and on the plane *x x*.

The object of my invention is to furnish a firm, certain, and easily adjustable holder for buttons while they are polishing. Up to the present time the custom in the trade has been to fix in a chuck or hole in the head-arbor of a lathe a cylinder of wood having its face dished or recessed for the reception of the back of a button, which is placed on a pintle inserted in the arbor of the tail-piece of the lathe, which arbor is made loose in its bearings, so as to admit of longitudinal motion to and from the head-piece. By a suitable device the movable arbor is moved toward the head-piece and the button carried against the wooden cylinder, which is set in rapid revolution. The workman then applies a burnisher to the face and edge of the button and polishes it. By this method the button is frequently pressed from the center, tips up, and is stopped in its motion by the friction against the burnisher.

The letter *a* denotes the rotary chuck-body, with the threaded hole in one end for the purpose of fastening it to the rotary spindle *b*.

The letter *c* denotes the cylindrical plug carrying the spring-pistons *d* and *o*, which project beyond the button-seat and the springs *e*. The plug *c* is practically a part of the chuck-body, but it is made separate for the handy insertion of the spring-pistons and the springs.

The letter *f* denotes a flanged sleeve fastened by the screws *s' s'* to the chuck-body, and holding in place by the flange *k* a washer, *g*, of suitable material—wood, for instance—and a washer-cushion, *h*, inserted in the end of the chuck-body surrounding the plug *c*, and of suitable material—leather, for instance.

The letter *l* denotes a button placed loosely upon the pintle *m*, which is inserted in the end of the longitudinally-moving arbor, *n*.

The letter *s* denotes a screw, which passes through the chuck-body *a* and fastens securely the plug *c*.

The operation of my invention is as follows: The button *l*, being placed upon the pintle *m* and moved toward the chuck by the longitudinal motion of the arbor *n*, is pressed against the washer *g*, the washer-cushion *h*, and the ends of the spring-pistons *d*. The chuck being in rapid rotation, the spring-pistons *d* quickly find the holes *v v* in the bottom, and, actuated by the springs *e*, press into the holes of the button as it is held against the chuck, thus holding the button in place and in rotation while being burnished.

The central spring-pin, *o*, is designed to press against the surface of the button and throw the button off the spring-piston when the button has been burnished, and from the office it serves I call it an "ejector."

I claim as my invention—

1. The rotary chuck-body bearing in one end a button-seat and provided with the spring-pistons projecting from the button-seat, all substantially as described, and for the purpose set forth.

2. The rotary chuck body bearing in one end the seat for the button, and provided with the spring-pistons and the ejector, substantially as described, and for the purpose set forth.

3. The combination of the rotary chuck-body *a*, carrying the plug *c* and the spring-pistons *d*, with the washer-cushion *h*, the washer *g*, and the flanged sleeve *f*, all substantially as herein described, and for the purposes set forth.

BRIGHAM PAYNE.

Witnesses:

CHARLES L. BURDETT,

JAMES J. GREENE.