T. & G. COPE.

Tobacco Press.

No. 94,568. Patented Sept. 7, 1869.

Fig: 1.

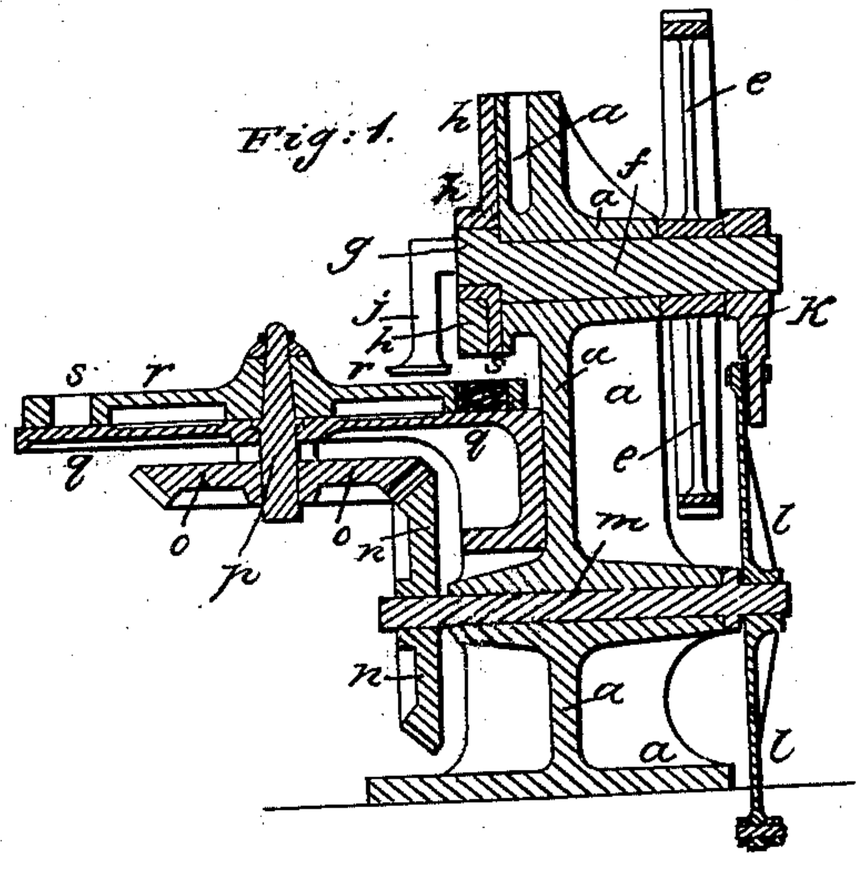


Fig: 3.

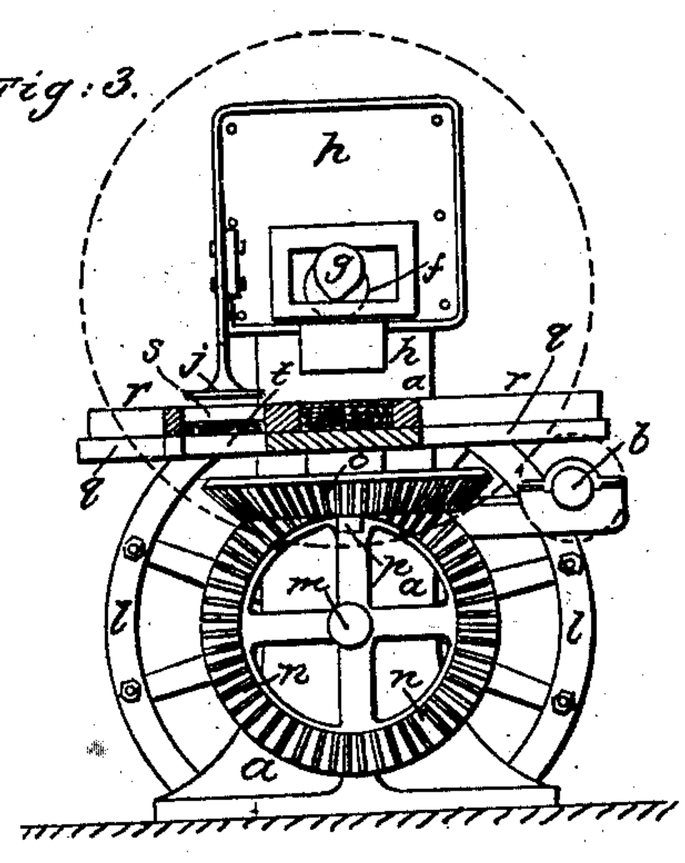


Fig: 2.

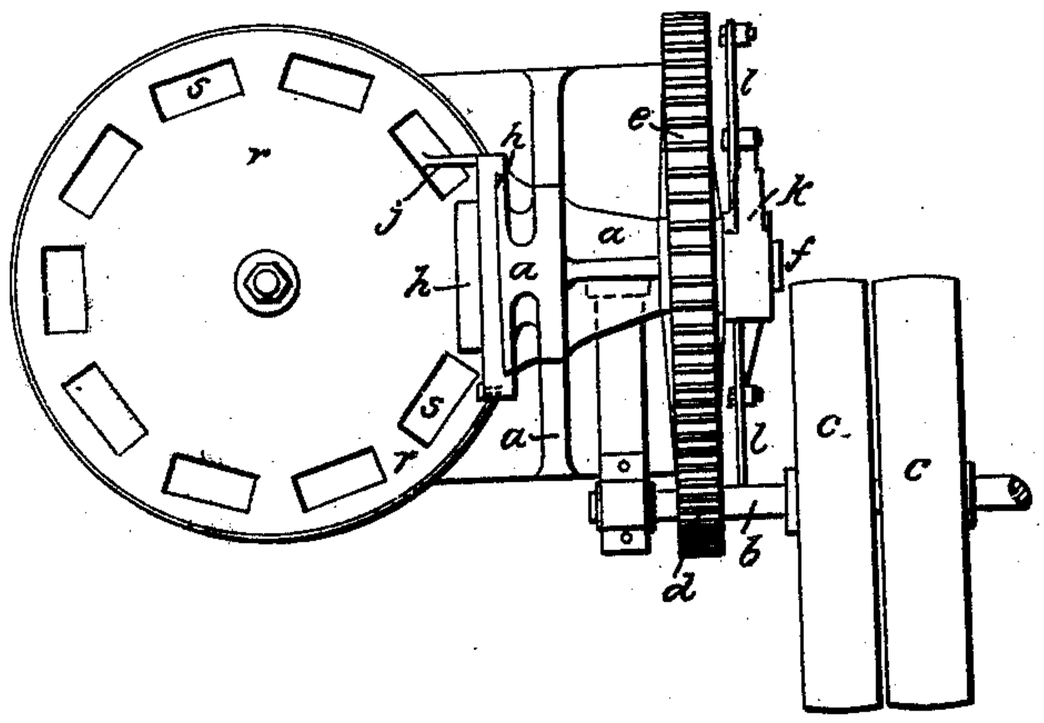
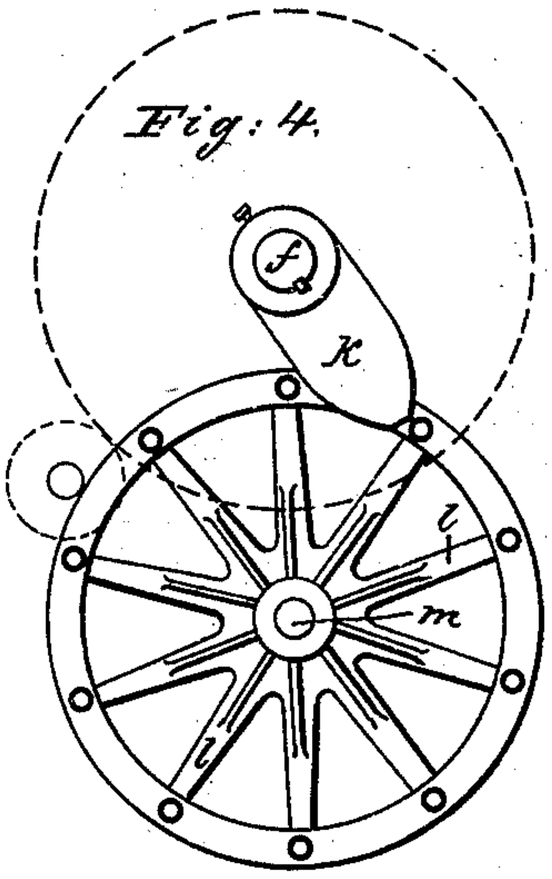


Fig: 4.



Witnesses:

John Craig

John Joy.

Inventors:

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THOMAS COPE AND GEORGE COPE, OF LIVERPOOL, ENGLAND.

Letters Patent No. 94,568, *dated September* 7, 1869.

IMPROVEMENT IN MACHINES FOR PRESSING TOBACCO.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, THOMAS COPE and GEORGE COPE, of Liverpool, England, have invented a new and improved Machine for Pressing and Shaping Tobacco; and we do hereby declare that the following is a full, clear, and particular description thereof, reference being had to the accompanying sheet of illustrative drawings, and to the figures and letters thereon, making a part of this specification; that is to say—

The object of our invention is to provide a machine whereby tobacco-leaves, either whole or stripped, or broken, or cut to any required degree of fineness, can be pressed into cakes or blocks of any convenient size, such as cavendish, and also for finish-pressing such cakes or blocks after the covers are laid on.

The leading features of the said machine are the employment in combination (*a*) of a reciprocating presser, with a mould-table caused to move intermittently, and (*b*) a reciprocating discharging-piece, to eject the formed cakes or blocks from the said mould-table.

Figure 1 is a longitudinal vertical section;

Figure 2, a plan;

Figure 3, a front elevation, part being broken out to show the tobacco in the moulds pressed and unpressed; and

Figure 4, a back elevation of the trundle-wheel and actuating-tooth.

In all these views like letters denote the same parts.

a is a strong frame, of cast-iron, supporting the working-parts.

b, first-motion shaft, with driving-pulleys *c* and toothed pinion *d*.

e, toothed wheel, gearing with *d*.

f, second-motion shaft, formed at its front end with a heart-shaped cam, *g*.

The said cam *g* operates in the rectangular opening formed in the sliding presser *h*, and gives to the said sliding-presser a reciprocating or up-and-down motion, but a reciprocating or up-and-down motion of such a kind, that the presser-piece ceases to move when at the top, and also at the bottom of its stroke.

The object in causing the said sliding presser *h* to rest when at the top of its stroke, is to allow time for the automatic moving of the mould-table, and the object in causing it to rest at the bottom of its stroke, is to submit the tobacco to continuous pressure for sufficient time thoroughly to compact it.

j is a reciprocating discharging-piece, attached to and moving with the sliding presser, to eject the formed cakes or blocks from the mould-table hereafter mentioned.

k is a tooth affixed on *f*, which gives motion to the trundle-wheel *l*, secured to the third-motion shaft *m*.

n, bevel-wheel, secured on *m*, and imparting motion to another bevel-wheel, *o*, made fast to the vertical stud *p*, carried on a stationary table, *q*, bolted or otherwise fastened to the supporting-frame *a*.

r is the mould-table. This moves with the shaft *p*, and in consequence of the same number of trundles being affixed in wheel *l*, as there are mould-spaces, *s*, the said mould-spaces are brought in succession, by the action of the tooth *k*, directly under the sliding presser *h* and discharging-piece *j*, and hence, at each downward stroke, the tobacco in one mould is subjected to pressure, and the formed cake or block in the one preceding it is discharged through an opening, *t*, formed in the stationary table *q*.

It will be obvious the moulds can be formed of any desired shape, and the sliding-presser fitted or fashioned with any suitable design.

Having described *seriatim* the different parts of our machine, we now proceed to describe the mode of working the same.

In forming cakes or blocks of compacted tobacco from loose leaves, stated quantities of tobacco are, after being weighed, placed in the mould-spaces *s*, and covered with metal plates. Each of these mould-spaces come successively under the sliding presser *h*, and the tobacco is thus pressed into the same form as the mould-spaces *s*.

The mould-space last under pressure passes, by the next movement of the table *r*, under the discharging-piece *j*, and the formed cakes or blocks are forced out through the opening *t*, into any suitable receptacle, or removed by hand, and thereafter enveloped in a covering leaf.

The intermittent motion of the table is effected primarily by means of the tooth *k* and trundle-wheel *l*. These, through the shaft *f*, bevel-wheels *n o*, and stud *p*, cause the mould-table *r* to move a distance equal to the space between the two recesses, for every revolution of the second-motion shaft *f*, and consequently for every complete or up-and-down motion of the sliding presser *h*.

In finish-pressing, the cakes or blocks are, after being wrapped in the desired covers, placed by the attendant in the mould-spaces *s*, as they come around, and subjected to pressure and ejected in the same manner as when formed originally.

Having now fully set forth the construction and mode of working our said machine,

What we claim, is—

1. The employment, in combination, of the reciprocating sliding presser *h*, with the rotating mould-table *r*, and fixed table *q*, substantially in the manner and for the purpose set forth.

2. The separate discharge-piece *j*, in combination with the rotating mould-table *r*, presser *h*, and fixed table *q*, substantially in the manner and for the purpose set forth.

3. The tooth *k* and trundle-wheel *l*, in combination with the reciprocating presser *h* and mould-table *r*, substantially as set forth.

In testimony whereof, we, the said THOMAS COPE and GEORGE COPE, have hereunto set our hands, the 13th day of July, in the year of our Lord, 1869.

THOMAS COPE.
GEORGE COPE.

Witnesses:
JOHN A. KING,
JOHN TOY.