J. H. BROWN.

PLAITING-MACHINES.

No. 192,860. Patented July 10, 1877

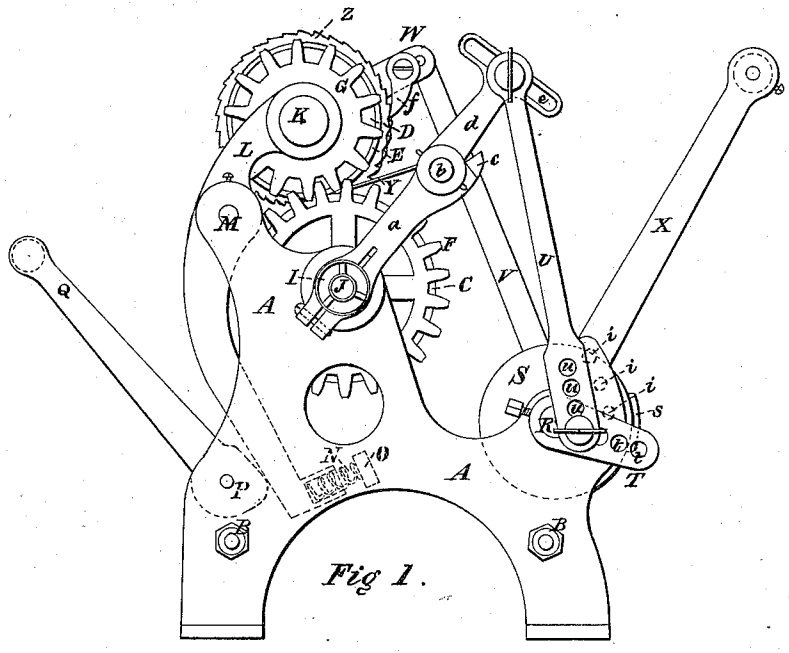


Fig 1.

Fig 2.

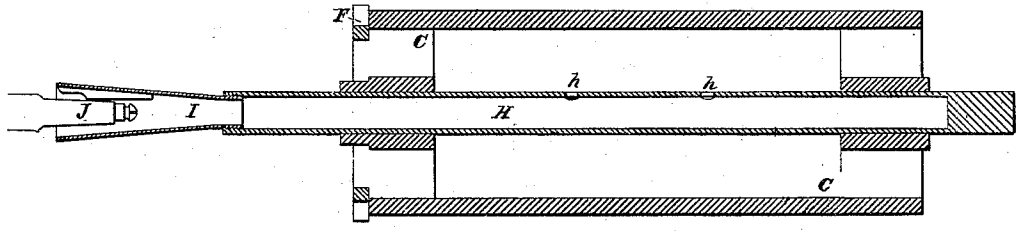


Fig 3.

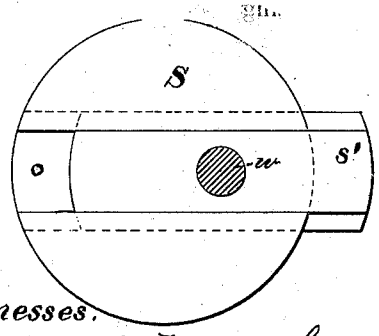
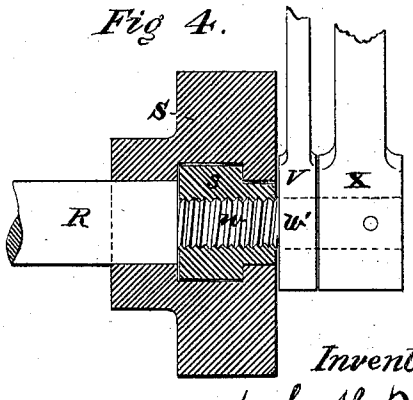


Fig 4.



Witnesses.

Thomas a Macaulay

Hugh Callary.

Inventor.

John H Brown

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN H. BROWN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PLAITING-MACHINES.

Specification forming part of Letters Patent No. 192,860, dated July 10, 1877; application filed October 26, 1876.

To all whom it may concern:

Be it known that I, JOHN H. BROWN, of the city of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Plaiting-Machines, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same.

Similar letters refer to like parts.

The object of my invention is to produce a simple and improved plaiting-machine for making trimming for ladies' wearing-apparel, it being an improvement on my patent plaiting-machine patented July 11, 1876, No. 179,763; and consists of a novel arrangement for heating the lower roller, and an improved method of adjusting the throw of the feed-operating crank, as hereinafter described.

Figure 1 is an end elevation. Fig. 2 is a transverse section of the lower roller, showing my improved mode of applying the heat. Fig. 3 is a front elevation of the adjustable crank-block for regulating the throw of the feed. Fig. 4 is a transverse section of the adjustable crank-block, showing the set-screw *w* and crank-pin *w'*.

A is the frame of the machine. B B are stay-bolts, for connecting the sides A together. C is the lower roller; D, the top roller. E is an elastic covering for the top roller. G is a gear on the top roller. F is a gear on the lower roller. H is a hollow rock-shaft passing through the roller C. I is a conical inlet-tube, screwed into the hollow rock-shaft H, for the admission of gas and air into the hollow rock-shaft H. J is a gas-burner, held between projections on the inside of the conical tube I. K is the shaft of the top or feed roller. L is a lever, pivoted at M for attaching and detaching the roller D from the roller C. N is a spring, for giving the necessary pressure on the top roller through the lever L. O is a projection from the side of the frame A, from which the spring N acts. P is a cam-shaft, for detaching the roller D from the roller C; Q, a lever, for operating the cam-shaft P; S, a disk on the main shaft R, with beveled slot, for reception of sliding block; *s*, an adjustable sliding block, for regulating the throw of the feed-roller. T is a crank on the main shaft R, for operating the plaiting-blade Y through the connecting-rod *u* and lever *d*; V, the connecting-rod, for operating the feed by the adjustable block *s*; W, a ratchet-lever, for operating the wheel Z by the pawl *f*. *w* is a set-screw, pinned to the crank-lever X, for securing in position the adjustable block *s*, and forming a crank-pin at *w*, for the connecting-rod V. X is a crank-lever, for rotating the machine. *a* are radius-bars, rigidly attached to the hollow shaft H; *b*, a radius, on which the plaiting-blade bar operates; *d*, a lever, for operating the plaiting-blade bar; *e*, a slot in the lever *d*, for adjusting the plaiting-blade; *c*, a lug on *a*, on which the lever *d* strikes to operate *a* on the backward movement of the plaiting-blade Y. *f* is a ratchet-pawl, for operating the ratchet-wheel Z. *h h* are holes in the hollow rock-shaft H, from which the gas for heating the roller C is consumed. *i i i* are tension-bars, through which the material passes to the plaiting-blade Y; *s'*, an adjustable block in the disk S; *w*, a set-screw, for holding the adjustable block in position. *t* are holes for adjusting the throw of the plaiting-blade. *u u u* are holes for adjusting the position of the plaiting-blade Y.

When motion is given to the machine the plaiting-blade Y receives a forward and back motion from the crank T and connecting-rod U. In the forward motion the blade Y presses the material firmly on the roller C; a forward movement of the blade takes place, making a plait of the desired width, which is forced between the rollers C and D. The plait being now formed, the rollers receive motion from the crank-lever X, crank-pin W, connecting-rod V, and ratchet-wheel Z, carrying the plait through the rollers. The plaiting-blade returns to its starting-point to form another plait.

I am aware that a sliding block is old in plaiting-machines for changing the throw of the operating-crank, and such I do not claim; but

What I claim is—

1. In a plaiting-machine the hollow rock-shaft H and arms *a a*, arranged to operate as described, for the purpose set forth.

2. The combination of the set-screw *w* and crank-pin *w'* with the sliding block *s*, constructed and arranged substantially as and for the purpose set forth.

JOHN H. BROWN.

Witnesses:

THOS. A. MACAULEY,

HUGH CALLARY.