(No Model.)

P. A. JOHNS.

MACHINE FOR MAKING CONFECTIONERY.

No. 308,412. Patented Nov. 25, 1884.

Fig. 1.

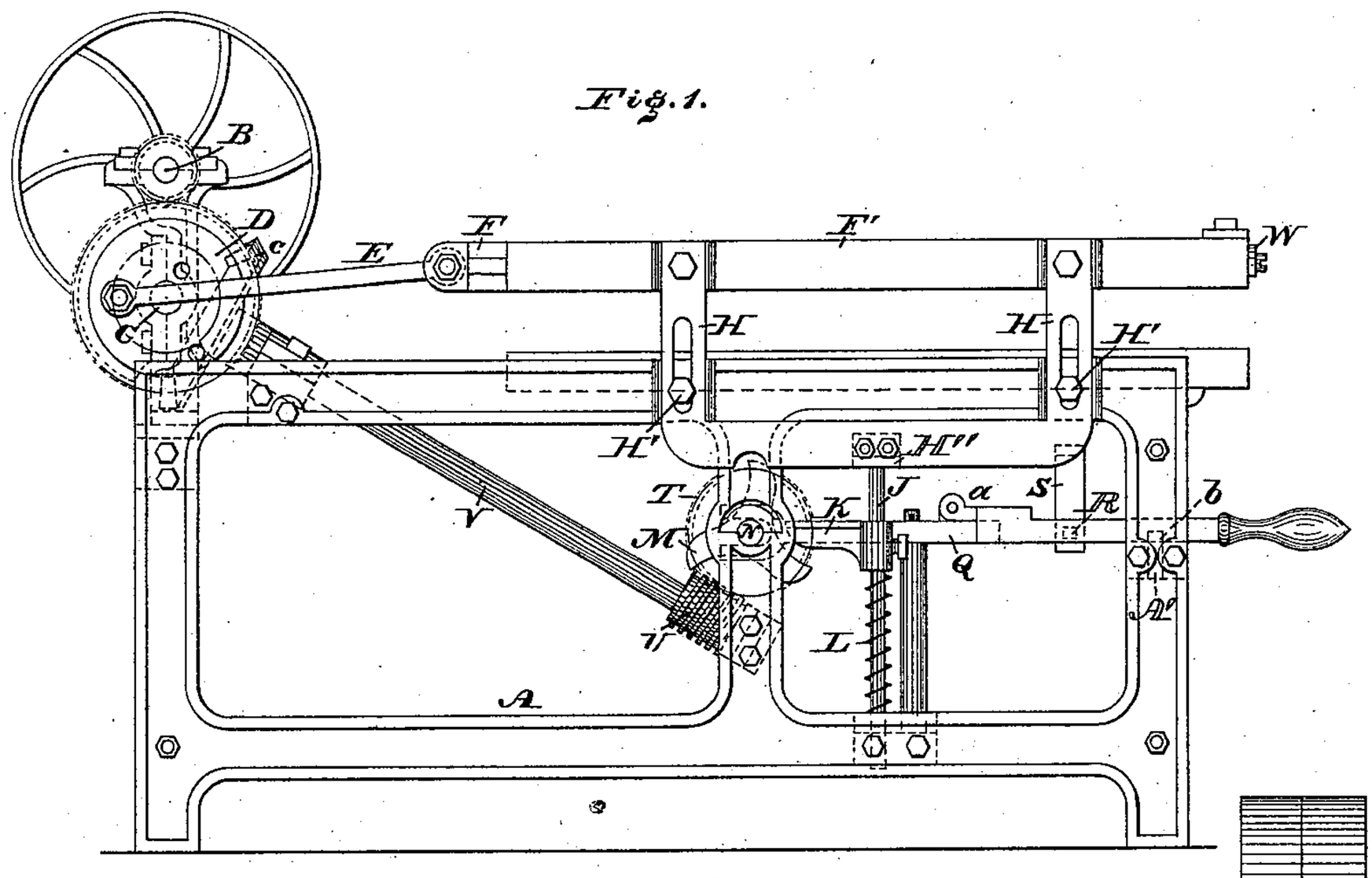


Fig. 2.

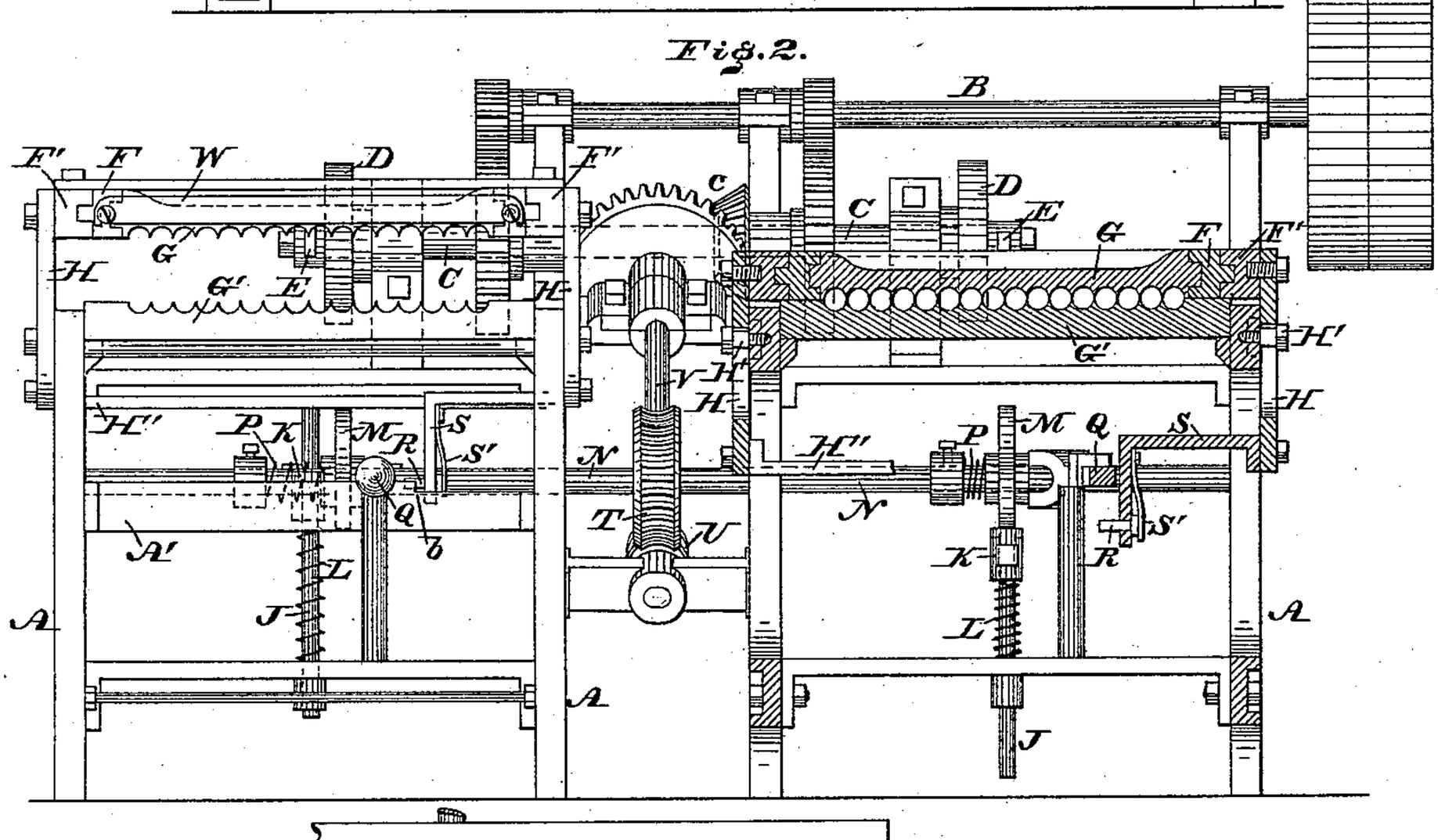
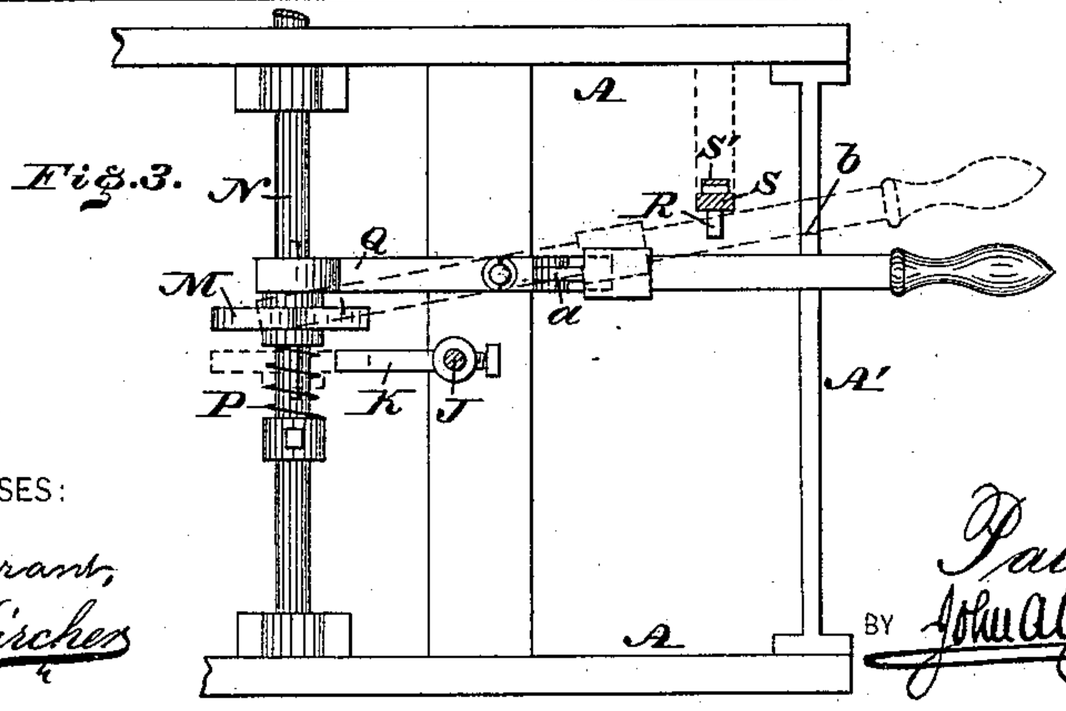


Fig. 3.



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PAUL A. JOHNS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO FRANZ SCHENUIT, OF SAME PLACE.

MACHINE FOR MAKING CONFECTIONERY.

SPECIFICATION forming part of Letters Patent No. 308,412, dated November 25, 1884.

Application filed May 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, PAUL A. JOHNS, a subject of Austria-Hungary, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Making Confectionery, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of a machine for making confectionery embodying my invention. Fig. 2 is a partial end view and partial transverse section thereof. Fig. 3 is a view of a detached portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a machine for making confectionery provided with means for opening and closing the shaping-heads and stopping the movable head thereof, and other details of construction, as will be hereinafter fully set forth.

Referring to the drawings, A represents the frame of the machine, on which is mounted the driving-shaft B.

C represents a shaft which is mounted on the frame A, parallel with the shaft B, and geared therewith. To said shaft C is keyed or otherwise secured a crank-wheel, D, to which is adjustably secured a connecting-rod, E, the other end whereof is pivoted to a sliding frame, F, to which is removably fitted a grooved head, G, said head being coupled with the frame, so as to move therewith. The frame F is mounted on guides F′, which are supported on rising and falling arms H, which latter are formed with vertical slots, through which are passed the bolts H′, which connect the arms with the frame A, the same serving to guide said arms in their vertical motions.

Depending from and secured to the connecting cross-bar H″ of the arms H is a rod, J, which is provided with a nose, K, against which bears an upwardly-pressing spring, L, the object whereof is to raise the rod J, arms H, and guides F′, and consequently the frame F, with the head G. In order to lower said head G, the nose K is engaged by a winged cam, M, which is fitted to a shaft, N, on the frame A by a feather, so as to rotate with said shaft and slide laterally thereon. A spring, P, bears against the cam M on one side thereof, and a lever, Q, engages with the other side thereof, whereby said cam may be moved in opposite directions. The lever Q has its handle portion hinged or pivoted, as at *a*, whereby said portion may be raised and lowered. When the lever is in the position shown by the dotted lines, Fig. 3, the cam M is held by the same in engaging contact with the nose K, and in order to retain the lever in such position the cross-piece A′ of the frame A has a notch or shoulder, *b*, against which the lever Q is rested.

In order to raise the lever, and thereby disengage it from the shoulder *b*, I employ a horizontally-arranged bolt, R, which is loosely fitted to an arm, S, and held in position thereon by a spring, S′, said arm depending from one of the arms H, so that when the head G rises the bolt R comes in contact with the handle part of the lever Q and raises the same, whereby the lever is released from the shoulder *b*, the effect whereof is to permit the spring P to be operative, so that the cam M slides on the shaft N and clears the nose K, whereby the rod J is inoperative, and the guides F′, with connected parts, remain at rest in an elevated position so far as the vertical motions are concerned. The shaft N carries a worm-wheel, T, which meshes with a worm, U, the latter being secured to a shaft, V, whose upper end is geared with the shaft C, the gearing employed in the present case being bevel-wheels, as at *c*. The counter part or bed G′ of the shaping-head G is mounted on the frame A below said head G, and made removable from said frame, the grooves of the head and bed being of any desirable form relatively to the shape of the confectionery to be made.

In order to retain the head G on the frame F, whereby said parts may be reciprocated as one, I employ a clamp or bar, W, which is attached to the frame F and serves to control said head, the latter, however, being removable from the frame when the clamp is disconnected or loosened from the frame F, said bar being pivoted to one side of the frame, and has at the other end a notch or hook which engages with a pin on the opposite side of the

frame. It will be seen that when the head is raised the parts are in position shown in Fig. 1. The material, which is in the form of a roll or rolls, is placed on the bed G′ at a right angle to the grooves thereof. The lever Q is now moved and engaged by the shoulder *b*, so that the cam M is shifted to the nose K, and thus the head is lowered, it being noticed that the head G is continuously reciprocated with the frame F. When the lever Q is operated, it strikes the bolt R and moves it back, so that it presents no obstacles to the subsequent descent of the arm S, said bolt afterward returning to its first position, so as to project under the handle end of said lever Q. As soon as the head reaches the material on the bed, it compresses, cuts, and works or rolls the same and shapes it into pellets or balls. As soon as the wing of the cam M, heretofore in contact with the nose K, leaves said nose, the latter is caused to rise by the action of the spring L, and as the head G and supporting parts follow the motions thereof the arm S advances the bolt R against the handle of the lever and lifts it clear of the shoulder *b*, so that the spring P immediately shifts the cam M clear of the nose K, and the rod J remains inactive, the effect whereof is to permit the head G and connected parts to remain in elevated position, the head, however, continuing to reciprocate with the frame F on the guides F′. The shaped material is now removed and the bed G replenished with fresh material, after which the lever Q is moved and locked, the head G again descending, the subsequent operations being similar to those hereinbefore stated, the result being rapid and uniform work, the pellets or balls of confectionery being readily produced of cream, chocolate, sugar, or other suitable material.

The number of machines may be multiplied, in which case suitable clutch mechanism may be employed, whereby the machines may be simultaneously or separately operated.

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

1. A sliding shaping-head and a vertically movable frame supporting the same and a shaping-bed, in combination with a spring and cam connected with said frame, for raising and lowering the same, and a crank and rod connected with the shaping-head, whereby the sliding motions of the latter are continuous during its several positions, substantially as and for the purpose set forth.

2. Guides supporting a reciprocating shaping-head, a rod provided with a nose connected with said guides, a cam adapted to engage with said rod, and a spring bearing upwardly against said rod, in combination with an automatically-acting tripping device for the lever of said cam, substantially as described.

3. A shaping-head having a depending arm, with a bolt, a lever, a cam, and a spring, and a rod or bar connected with said head, combined as described, whereby said lever is automatically tripped when the said head rises, substantially as and for the purpose set forth.

4. In a confectionery-machine, a shaping-head and elevating mechanism therefor, in combination with a shifting or shipper lever formed of two parts hinged together, and an automatical tripping device for said lever, substantially as and for the purpose set forth.

5. The guides, with the reciprocating frame and head mounted thereon, the frame of the machine having a removable head, the supporting-arms connected with said guides, and the rod attached to said arms, in combination with a spring and cam for imparting motions in opposite directions to said rod, and an automatical tripping device for the lever of said cam, substantially as and for the purpose set forth.

6. The guides F′, the reciprocating frame F, fitted thereto, and the head G, mounted on said frame, in combination with the pivoted clamp W, the frame F and head G being tongued and grooved, and the head adapted to slide in and out of the frame, and when in position be held by the bar W, substantially as and for the purpose set forth.

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