

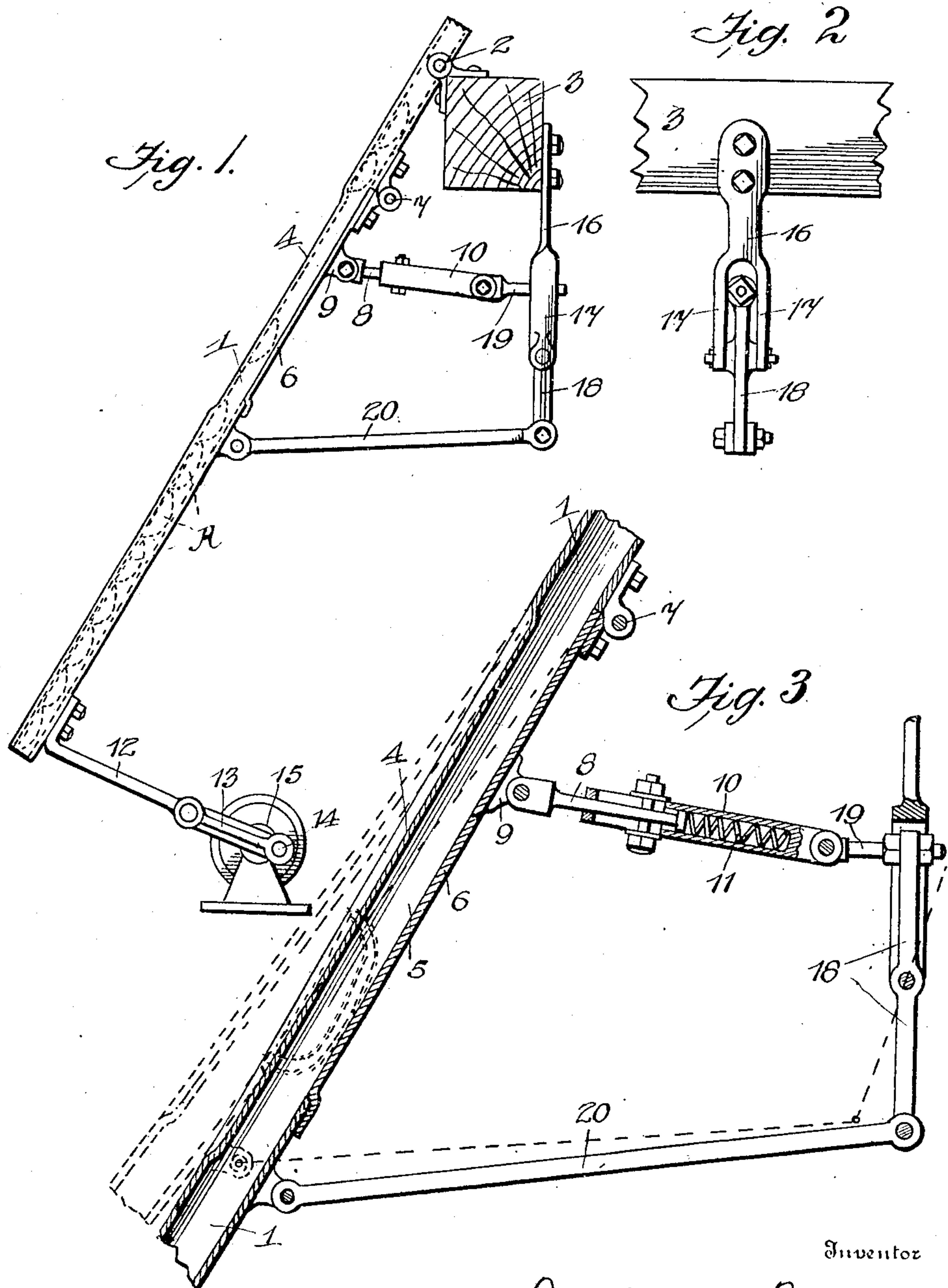
No. 869,509.

PATENTED OCT. 29, 1907.

N. NELSON.

CAP FEEDING MECHANISM FOR CANNING MACHINES.

APPLICATION FILED MAY 11, 1907.



Witnesses
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UNITED STATES PATENT OFFICE.

NATHANIEL NELSON, OF CHICAGO, ILLINOIS.

CAP-FEEDING MECHANISM FOR CANNING-MACHINES.

No. 869,509.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed May 11, 1907. Serial No. 373,077.

To all whom it may concern:

Be it known that I, NATHANIEL NELSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cap-Feeding Mechanism for Canning-Machines, of which the following is a specification.

My invention relates to a cap feeding mechanism for canning machines, and particularly contemplates the provision of a new and useful construction whereby the caps, when becoming jammed within the feeder will be automatically thrown out of said feeder to allow of the free passage of those following.

My invention further resides in the following features of construction, arrangement and operation as will be hereinafter described with reference to the accompanying drawings, in which like numerals are used to designate like parts throughout the several figures, and in which,

Figure 1 is a side elevation of my improved mechanism, Fig. 2 is a rear elevation of the hanger and the lever pivoted therein, and Fig. 3 is an enlarged elevation partly in section of a portion of the mechanism shown in Fig. 1.

In the practical embodiment of my invention I provide a cap slide or chute 1, pivotally mounted at 2 upon a stationary beam 3, and adapted to transfer or convey a series of caps A therethrough to the can capping mechanism preferably located adjacent the lower end of said chute. The chute 1 is provided with a longitudinal depression 4 therein, providing a substantially reduced cap conveying portion 5, through which the caps can only pass one at a time. Should two caps therefore be stuck together, they would at once jam at the upper end of the reduced portion 5, and stop the feeding of the caps. The chute 1 is further provided opposite the depression 4 with a door 6, hinged at 7 at its upper end to said chute, and provided with a tapering headed tongue 8 pivotally connected thereto within a bracket 9, and extending rearwardly therefrom within a socket 10. A coil spring 11, arranged within the socket 10, is adapted to bear against the inner end of said tongue 8, to press said door 6 closed. The chute 1 is adapted to be swung constantly to and fro upon its pivot 2 by means of an arm 12, connected adjacent its lower end, and secured to a pivotal connecting rod 13, operated from a crank 14, forming a part of a rotatable shaft 15. Other suitable means may be employed to swing the chute 1, as

these means are immaterial, so long as the chute receives the described motion.

Depending from the beam 3, and rigidly secured thereto, is a bracket 16, slotted from its lower end to form spaced legs 17, in the ends of which is pivotally mounted an oscillating lever 18, connected at its upper end, by means of the pivotal rod 19, to the socket 10, and pivotally connected at its lower end by a connecting rod 20, having pivotal connection with, and extending from the chute 1.

The operation is as follows, it being supposed that superposed caps have become jammed within the chute 1 at the upper portion of its reduced section 5. As the chute 1 is swung outward by the mechanism previously described, to the position shown in dotted lines in Fig. 3, it will move away from its door 6, thus allowing the caps to drop out at the lower end of the door, the connecting rod 20 at the same time oscillating lever 18 to draw backward upon the socket 10 to overcome the tendency of the spring 11 to close the door. It will be understood that the caps, passing one by one down the chute, will slide freely through the reduced section 5, and will, therefore not be affected by the swinging of the chute, nor the opening formed at the base of the door.

Having thus fully described my invention I claim:

1. In a mechanism of the character described, the combination with a swingingly mounted cap chute having a reduced portion therein, of a door hinged within said chute, adjacent its reduced portion, means for swinging said chute away from said door, a spring mounted to press said door closed upon the return of said chute, and means having connection with said chute and operated by the same, for moving said spring rearwardly to counteract the effect of the same and allow said door to open when said chute is swung away from the same, substantially as described.

2. In a mechanism of the character described, the combination with a swingingly mounted cap chute having a reduced portion therein, of a door hinged within said chute adjacent its reduced portion, means for swinging said chute away from said door, a spring mounted to press said door closed upon the return of said chute, and means for counteracting the effect of said spring upon the first named movement of said chute, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

NATHANIEL NELSON.

Witnesses:

JOHN W. BRITTON,
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