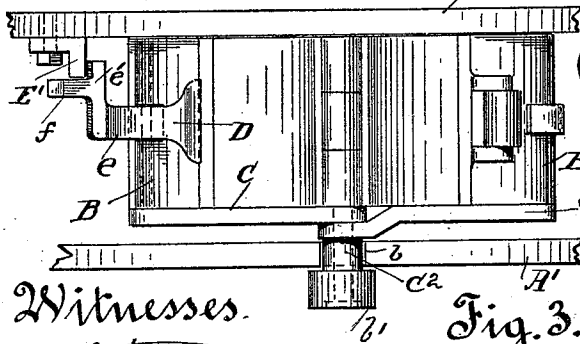
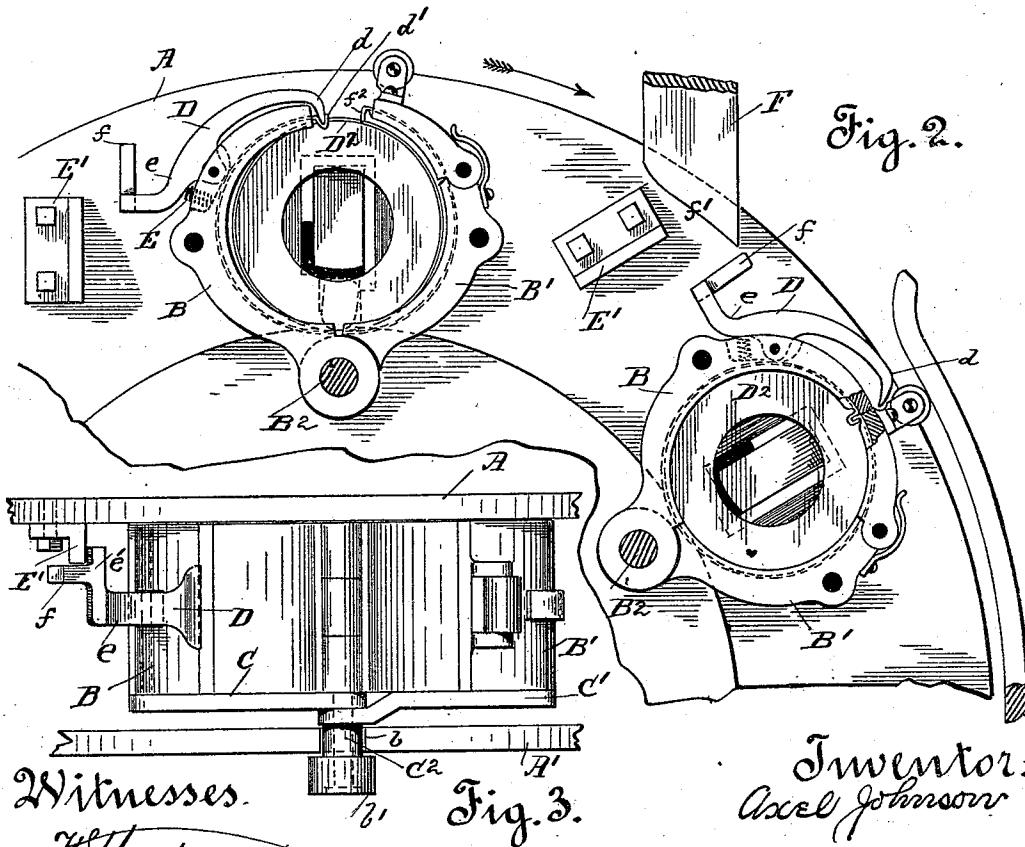
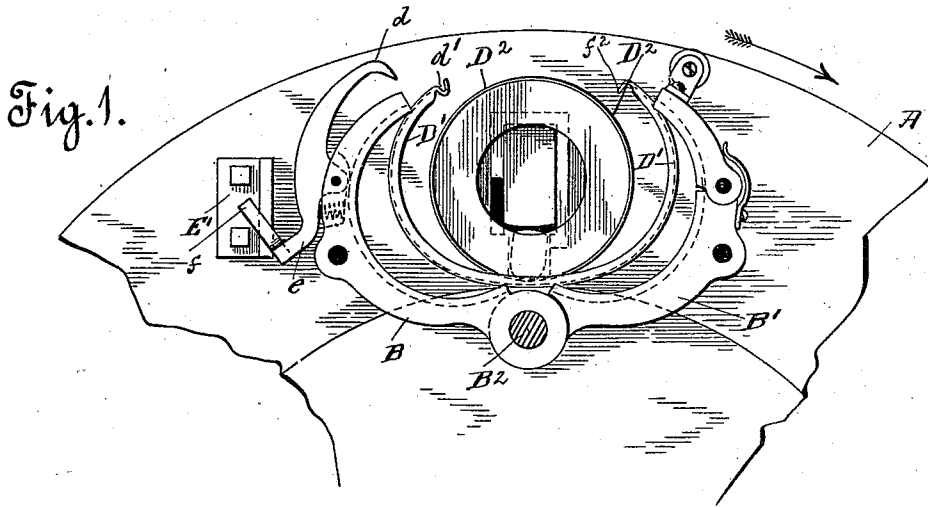


(No Model.)

A. JOHNSON.
ATTACHMENT FOR CAN MAKING MACHINES.

No. 554,027.

Patented Feb. 4, 1896.



Witnesses.

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UNITED STATES PATENT OFFICE.

AXEL JOHNSON, OF OAKLAND, CALIFORNIA.

ATTACHMENT FOR CAN-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 554,027, dated February 4, 1896.

Application filed May 16, 1895. Serial No. 549,531. (No model.)

To all whom it may concern:

Be it known that I, AXEL JOHNSON, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Attachments for Can-Making Machines; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to a certain new and useful attachment to the clamping-jaws of a can-making machine, and it relates more especially to the clamping-jaws of that style of can-making machines fully set forth and described in Letters Patent of the United States No. 526,925, for an improved can-making machine, granted to Axel Johnson and Henry C. Black, October 2, 1894.

By reference to the can-making machine set forth in Letters Patent No. 526,925 it will be observed that the can-body blank is received into the clamping-jaws while in a partially-rolled condition. The can-body blank made use of in this machine is provided with side grooves or channels which receive the can ends, and one end of the said blank is grooved transversely to receive the hook or flange formed at the opposite end of the can-body blank. In the practical working of machines of this character I have discovered that during the course of a day's run the can-body blanks, as the clamping-jaws are closed therearound so as to fold the body-blanks around the can ends, have a tendency to slip within the jaws. Should the can-body blanks slip, the flanged or hooked end of the blank will not register with the transverse groove or channel. Consequently when the clamping-jaws are closed and the mandrel forced upward no side seam or joint will be formed, for the reason that the end flange or hook not having registered with the transverse groove or channel, the ends of the can-body blank do not interlock. It will thus be seen that should the body slip as the clamping-jaws are brought together, the can-body blank will not only be completely destroyed, but the ends likewise damaged. It is to overcome this defect in

machines of this character that the present invention is designed.

In order to fully understand my invention reference must be had to the accompanying sheet of drawings, wherein—

Figure 1 is a broken detail view, in side elevation, of one of the disks composing the carrier-wheel, showing the clamping-jaws in an open position and the finger for engaging and holding the can-body blank and end in position within the jaws. Fig. 2 is a similar view showing one of the clamping-jaws partly closed and the position of the finger when engaging the grooved end of the can-body blank and the position of the engaging-finger after the clamping-jaws have been fully closed; and Fig. 3 is a broken detail plan view of the carrier-wheel, the clamping-jaws being shown in their open position.

In the drawings, the letters A A' are used to indicate the disks composing the carrier-wheel of the can-making machine, which disks are located a distance apart equal to the width of the clamping-jaws. Between these disks a series of clamping-jaws are located, each clamping-jaw being composed of the sections B B', hinged together by the rod B², which passes through the knuckle of each section of the jaw and the disks composing the carrier-wheel. The sections of the clamping-jaw swing upon this rod B² as the jaw is opened and closed. The jaw-sections are connected by means of the straps C C', one end of each strap being fastened to its respective section of the clamping-jaw, while the free end is loosely secured upon the short shaft C², which shaft projects through the vertical slot b cut in the disk A' and has secured to the end projecting beyond the outer face of the disks A' a roll b'. This roll during the rotary travel of the carrier-wheel rides upon a cam (not shown) and raises and lowers the shaft C² within the vertical slot b. As the said shaft is raised or lowered, the sections of the clamping-jaws are closed or opened by the inward or outward movement of the connecting-straps C C'. These features form no part of my present invention and the movement of each will be found fully

set forth and described in the aforesaid Letters Patent No. 526,925, to which reference is hereby made.

To the section B of the clamping-jaw I fulcrum the finger D, the upper end of which extends beyond the edge of the section B and is bent downward so as to form a hook *d*, which, when the forward or upper end of the finger is forced downward, will engage the transverse groove or channel *d'* formed in the end of the can-body D' and hold the can-body blank in position and prevent the slipping thereof as the clamping-jaw sections are brought together in order to fold the can-body blank around the ends D². This finger is normally held closed or pressed downward by the resiliency of the spring E, which is located between the tail portion *e* of the finger and the outer face of the jaw-section B. From the tail portion of the finger D inwardly projects the shoulder *e'*, which shoulder, as the sections of the clamping-jaw are thrown open their full distance, engages the face of the plate E' bolted to the inner face of the disk A and forces the rear end or tail portion of the fulcrumed finger downward and the upper end outward or away from the section B of the clamping-jaw, Figs. 1 and 3.

Assuming the can-body blank and ends for the can-body to be in place within the clamping-jaw and the carrier-wheel to be rotating, the operation of the finger or holding device for the can-body blank will be as follows: The moment the sections of the clamping-jaw have closed or moved together sufficiently far to carry the shoulder *e'* from engagement with the plate E' the resiliency of the spring E will force the lower end or tail portion of the fulcrumed finger outward or away from the section B, causing the upper end to move inward until the hooked end *d* is placed within the transverse groove or channel *d'* of the can-body blank. The resiliency of the spring E holds the finger in this position and the hooked end thereof fitting within the transverse groove or channel of the can-body blank prevents the blank slipping within the clamping-jaw as the sections are closed to fold the said blank around the ends. Just prior to the jaw-sections fully closing, the carrier-

wheel will have traveled such a distance as to cause the lug *f* upwardly projecting from the lower end or tail of the finger to move beneath the inclined face *f'* of the fixed cam F, secured to and projecting from the frame of the machine. (Not shown.) As the lug *f* is carried against the inclined face of this cam the lower end or tail portion of the fulcrumed lever is forced gradually downward and the upper end gradually raised until the hooked end thereof is removed from engagement with the can-body blank. By the time the upper or hooked end of the finger has been removed from engagement with the can-body, the flanged end *f*² of the can-body blank will be in position to move into engagement with the transverse groove or channel *d'*. The side seam of the can-body is then closed and the can discharged from the machine, as fully set forth in the aforesaid Letters Patent No. 526,925.

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

1. In a can-making machine, the combination with the clamping-jaws composed of two swinging sections which as brought together fold the body-blank around the can ends, of a device connected to one of the sections of the clamping-jaws which as the sections of the jaws are brought toward each other engages the can-body blank and holds the same securely in place within the sections of the clamping-jaw.

2. The combination with the carrier-wheel of a can-making machine, the clamping-jaws composed of swinging sections carried thereby, a finger fulcrumed to one of the swinging sections of the clamping-jaws which engages with and holds the can-body blank in position as the swinging sections of the clamping-jaws are closed and of devices for raising and lowering the fulcrumed finger as the swinging sections are opened and closed.

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

AXEL JOHNSON.

Witnesses:

N. A. ACKER,
ELMER WICKES.