No. 870,135. PATENTED NOV. 5, 1907.

W. E. SCHNEIDER.

MECHANICAL MOVEMENT.

APPLICATION FILED DEC. 11, 1906.

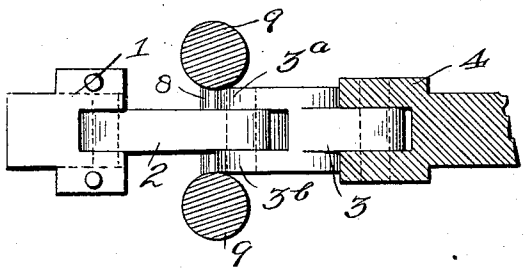


Fig. 1.

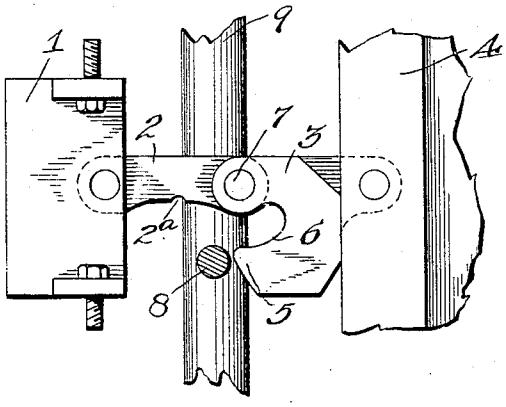


Fig. 2.

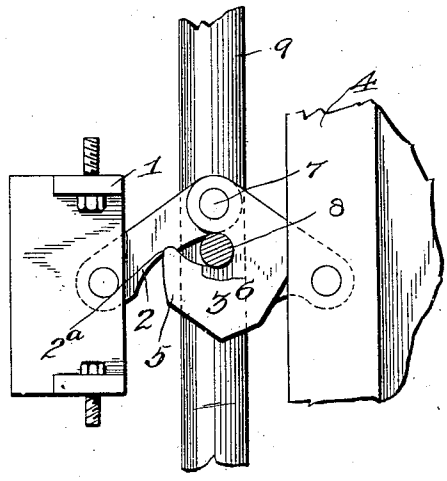


Fig. 3.

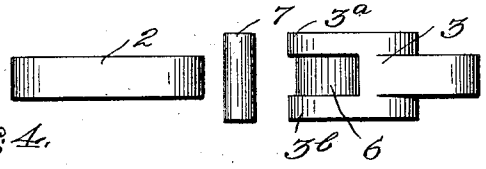


Fig. 4.

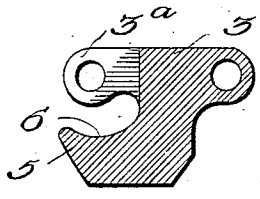


Fig. 6.

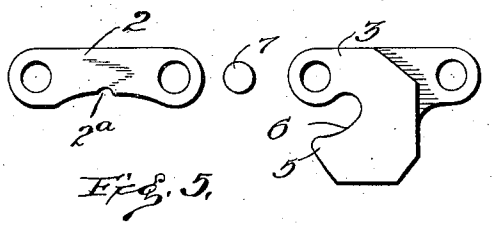


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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MECHANICAL MOVEMENT.

No. 870,135. Specification of Letters Patent. Patented Nov. 5, 1907.

Application filed December 11, 1906. Serial No. 347,319.

To all whom it may concern:

Be it known that I, WILLIAM EDWIN SCHNEIDER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Mechanical Movements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to mechanical movements and particularly to improvements in toggle-joints.

My improved toggle joint is particularly adapted for actuating jaws of contractible molds, especially as used in my machine for making receptacles from pulp as shown and described in my application for patent filed June 30, 1906, Serial No. 324,212.

It has for its object to provide a toggle-joint which may be extended as well as folded by the same operating means.

The invention consists in the features of construction and combinations of parts hereinafter described and specified in the claims.

In the accompanying drawings, illustrating an embodiment of my invention: Figure 1 is a plan view of a toggle-joint applied. Fig. 2 is a side view thereof, with the toggle extended. Fig. 3 is a similar view with the toggle folded. Fig. 4 is a plan view of the parts of the toggle separated. Fig. 5 is a side view thereof, and Fig. 6 is a longitudinal central vertical sectional view of the finger bearing member of the toggle-joint, in which the finger is made longer than those in the other figures.

Referring more particularly to the drawings, 1 designates a fixture to which one link 2 of the toggle-joint is secured. The other member or link 3 of the toggle is pivoted to the movable piece 4. Said member 3 is provided with a laterally offset finger 5 extending in a line substantially parallel with the longitudinal axis of said member. Between the finger and the body of the member of the toggle-joint is a slot or way 6 curved inward as shown. The adjacent ends of the two members are connected by a pivot-pin 7, the finger-carrying member having ears 3^a, 3^b embracing the end of the member 2.

The means for operating the toggle comprises a horizontal pin 8 secured between two vertical rods 9 and arranged in the slot 6. Any suitable means may be employed to reciprocate the vertical rods 9 within the desired limits. If the toggle-joint is extended, the upward movement of said rods will cause the pin 8, contracting with the under surface of the toggle, to fold said toggle and retract the movable piece 4, as shown in Fig. 2. When the vertical rods are lowered, the pin 8 will extend the toggle by reason of its bearing upon the finger 5. It will thus be seen that said toggle is contracted and extended by common means which is not fastened to either of the members of the toggle, namely the pin 8. The length of the finger may be varied to fill different requirements. As shown in the first five figures, it is short enough to permit the escape of the pin 8 past its end when the toggle has been completely extended, whereby the vertical rods 9 are allowed to continue on their downward stroke. If desirable, the finger may be made longer, as shown in Fig. 6, so that the pin 8 will not escape past it and the downward stroke of the rods 9 will be thereby limited. The under surface of the member 2 of the toggle is preferably provided with a notch or recess 2^a to receive the end of the finger on the other member when the toggle is folded, thus permitting said members to be folded to a smaller angle than would otherwise be possible and allowing a greater movement of the movable piece.

I claim:

1. A toggle-joint, of the character described, comprising two members directly pivoted together, one member provided with a laterally offset finger extending in a line substantially parallel with the longitudinal axis of said member for the purpose specified.

2. A toggle joint, of the character described, comprising two members directly pivoted together, one member provided with a laterally offset finger extending in a line substantially parallel with the longitudinal axis of said member, and a slot between said finger and the body of said member.

3. A toggle-joint, of the character described, comprising two members directly pivoted together, one member provided with a laterally offset finger extending in a line substantially parallel with the longitudinal axis of said member, and a curved slot between said finger and the body of said member.

4. A toggle-joint, of the character described, comprising two members directly pivoted together, one member provided with a laterally offset finger extending in a line substantially parallel to the longitudinal axis of said member, the other member having a recess in its surface to receive the end of said finger when the toggle is folded.

5. The combination, with a fixture and a movable piece, of a toggle-joint arranged therebetween, and common means unfastened to either member of said toggle for extending and folding the same.

6. The combination, with a fixture and a movable piece, of a toggle-joint arranged therebetween, one member of said toggle provided with a laterally offset finger extending in a line substantially parallel with the longitudinal axis of said member, and an operatively mounted pin adapted to enter between said finger carrying member and said finger to extend and fold said toggle.

7. The combination, with a fixture and a movable piece, of a toggle-joint arranged therebetween, one member of said toggle provided with a laterally offset finger extending in a line substantially parallel with the longitudinal

axis of said member, and an operatively mounted pin adapted to engage said finger and operate said toggle, said finger being of such length as to permit said operating pin to escape past its end when the toggle has been completely extended.

8. The combination, with a fixture and a movable piece, of a toggle joint arranged therebetween, one member of said toggle provided with a laterally offset finger extending in a line substantially parallel with the longitudinal axis of said member and also having a slot between said finger and body of said member, and an operatively mounted pin adapted to enter said slot, engage said finger and operate said toggle.

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

WILLIAM EDWIN SCHNEIDER.

Witnesses:
GEO. A. HUTCHINSON,
FRANK J. VEIHMEYER.