

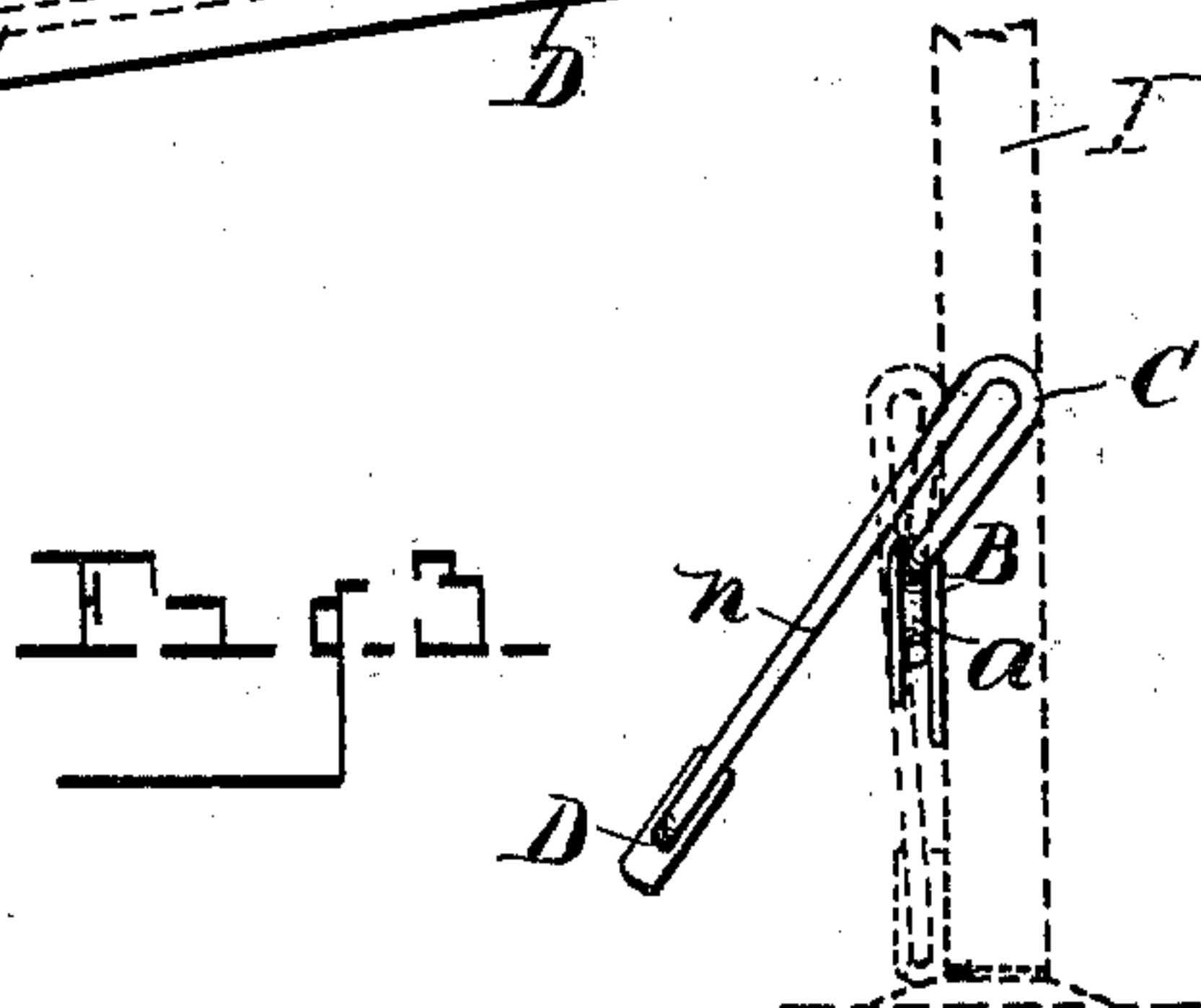
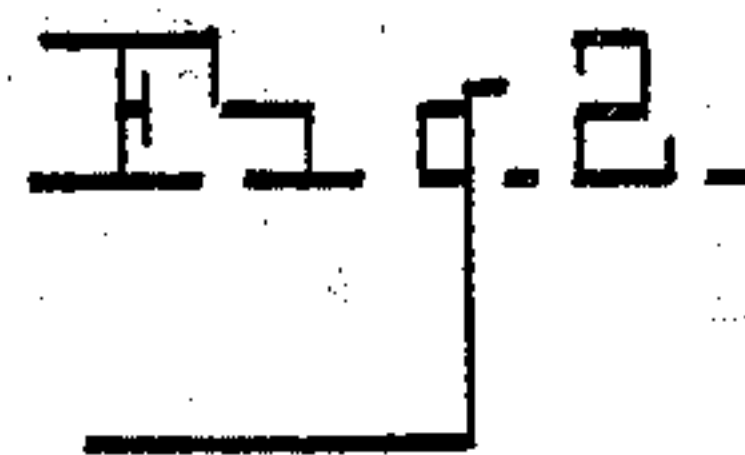
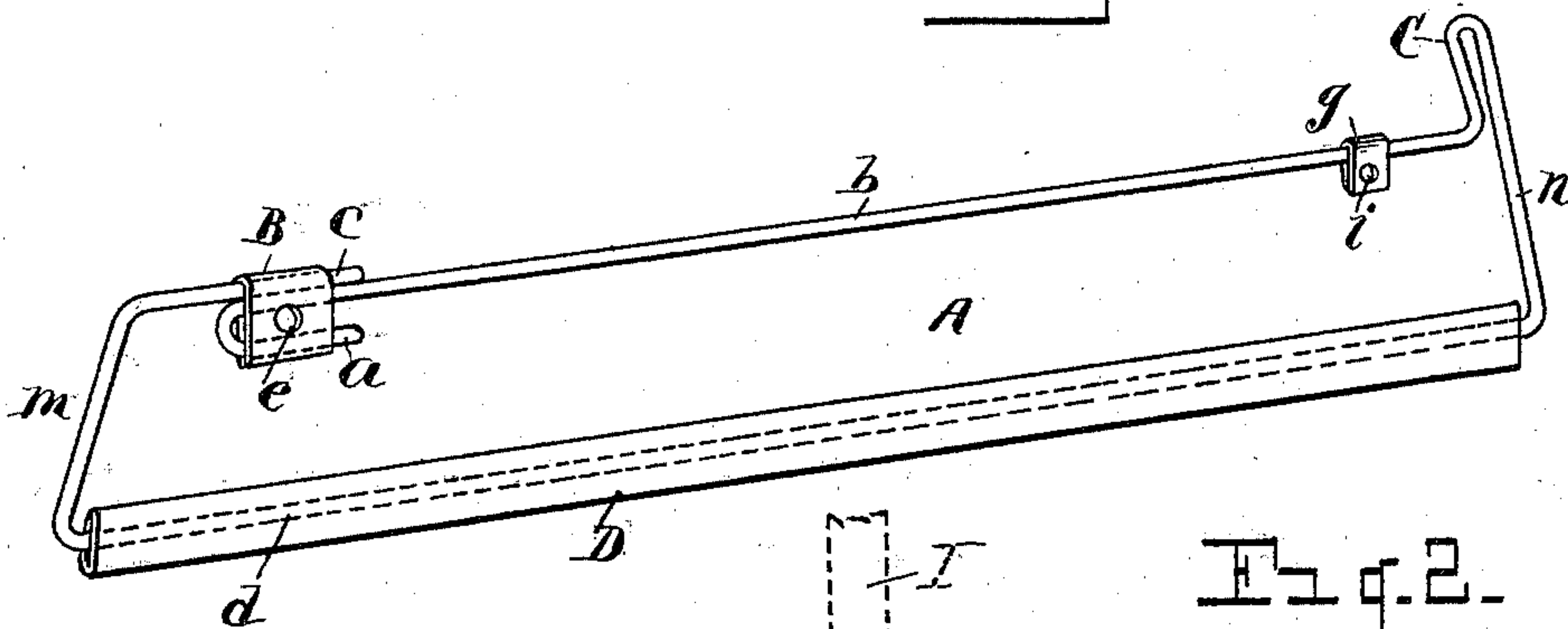
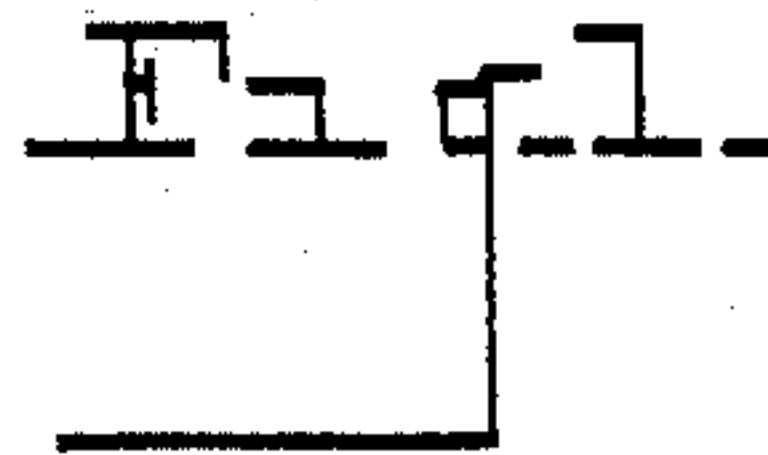
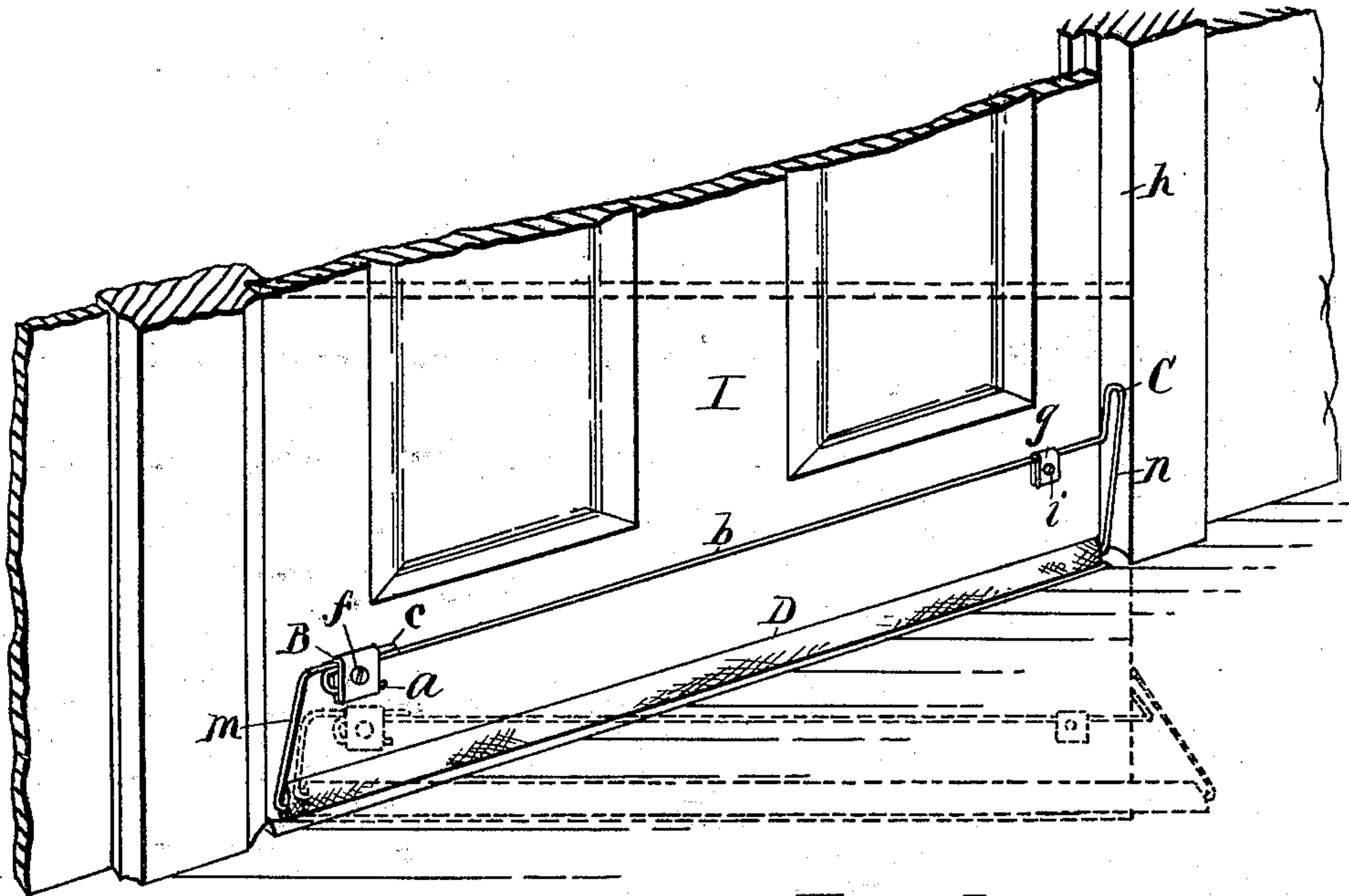
No. 610,219.

Patented Sept. 6, 1898.

W. F. WILMOT.
WEATHER STRIP FOR DOORS.

(Application filed Nov. 22, 1897.)

(No Model.)



WITNESSES
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UNITED STATES PATENT OFFICE.

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WEATHER-STRIP FOR DOORS.

SPECIFICATION forming part of Letters Patent No. 610,219, dated September 6, 1898.

Application filed November 22, 1897. Serial No. 659,399. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. WILMOT, a citizen of Canada, residing at Utica, in the county of Macomb, State of Michigan, have invented certain new and useful Improvements in Weather-Strips for Doors; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to weather-strips for doors; and it consists of the construction and arrangement of parts hereinafter fully set forth, and pointed out in the claims.

The object of the invention is to provide a weather-strip adapted to be mounted upon the inside of a door, and in which the construction is such as to automatically close the opening beneath the door when the door is closed, and which upon the opening of the door rises above the level of the floor and swings free therefrom. This object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view, partly in section, showing the application of my improved weather-strip to a door. Fig. 2 is an enlarged perspective of the weather-strip removed from the door. Fig. 3 is an end elevation showing by solid lines the position of the weather-strip when the door is open and by stipple lines the position of said strip closing the opening beneath the door when the door is closed.

Referring to the letters of reference, A designates a frame formed integrally of a single piece of spring-wire of suitable gage, describing somewhat a quadrangular figure having parallel longitudinal sides. The free ends of the wire forming said frame meet in the upper bar *b* thereof, the longer end of said bar having a return-bend *a* formed thereon, which stands in the plane of said bar, while the other end *c* is united to the longer portion of said bar *b* by means of a suitable clip B, embracing said end *c* and the bent end *a* and

having a central aperture *e* adapted to receive a screw *f*, which passes therethrough and through the loop formed by the bend *a*. Formed at the opposite end of said upper bar *b* is a projecting arm C, formed by looping the end of said bar, which arm stands at an angle to the plane of the loop or bend *a* in the opposite end of the bar *b*, as will be clearly seen on referring to Fig. 3. Embracing the bar *b* near the arm C is a clip *g*, in which said bar at that end is adapted to turn, and which is adapted to be secured to the face of the door I by means of a screw *i*.

The lower bar *d* of the frame stands parallel to the bar *b* and carries a covering of heavy felt or rubber or other suitable material D, adapted to close the opening beneath the door, as shown in Fig. 1. The lower bar *d* of the frame depends from the end portions *m n*, respectively, of which the end *n* is formed by a continuation of the loop of the arm C, whereby said arm is made to serve as a lever to move the lower bar *d*, the upper bar *b* acting as the fulcrum of said lever.

This improved weather-strip is secured to the inner face of the door by means of screws *f* and *i* and is so located as to cause the felt or covering D of the lower bar *d* to lie against the extreme lower edge of the door when closed, as shown in Fig. 1.

When the door is open, the normal position of the parts is shown by solid lines in Fig. 3 and by stipple lines in Fig. 1, in which position the lower bar of the frame stands away from and above the bottom of the door, while the arm C projects beyond the line of the face thereof, whereby as the door is closed said arm C engages the jamb *h* of the door-casing and its free end is forced outward into line with the face of the door, causing the lower bar of the frame carrying the weather-strip or felt covering D to swing downward against the bottom edge of the door to close the opening thereunder. In this operation the upper bar *b* of the frame is twisted, owing to the fact that said bar cannot turn for its entire length by reason of the bend or loop *a* in the end thereof, which is confined in the clip B, thereby placing a torsion strain upon said bar *b*,

which upon the opening of the door throws the free end of the arm C inward and raises the lower bar of the frame carrying the weather-strip, the end c of said frame turning freely in the clip B.

It will now be understood that by means of this improved device a weather-strip is provided of simple construction, which automatically closes the opening beneath the door when the door is closed and which upon the opening of the door rises above the bottom thereof free from the floor. It will also be seen that by means of the integral spring-frame which carries the weather-strip upon the lower bar thereof said strip when the door is closed is held firmly against the bottom of the door and over the opening thereunder by spring force, causing said strip to lie closely against the lower edge of the door and to conform to any irregularity therein or in the sill, making a most effectual closing.

Having thus fully set forth my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a weather-strip for doors, the combination of the integral spring-frame having its upper member rigidly secured to the door at one end and attached at the other end to the door so as to rotate, the lower member of said frame, the fabric strip mounted on said lower member, the projecting arm attached to said

members of the frame and adapted to engage the jamb of the door.

2. In a weather-strip, the combination of a quadrangular spring-frame formed of a continuous piece, a plate uniting the meeting ends of said frame in which one of said ends is held from rotation, a fabric strip mounted on said frame, a projecting arm at the end of said frame connected with the members thereof and adapted to engage the jamb of the door, and means for attaching said frame to the door near its lower edge.

3. In a weather-strip for doors, the combination of the quadrangular frame, the upper bar of said frame consisting of a torsion-rod secured to the face of the door so as to rotate at one end only, the lower bar of said frame carrying the fabric strip, the integral projecting arm connected with said torsion-bar and with said lower bar, said arm standing at an angle to the plane of the secured end of the torsion-bar and adapted to engage the jamb of the door to carry said fabric strip against the lower edge thereof substantially as set forth.

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

WILLIAM F. WILMOT.

Witnesses:

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