

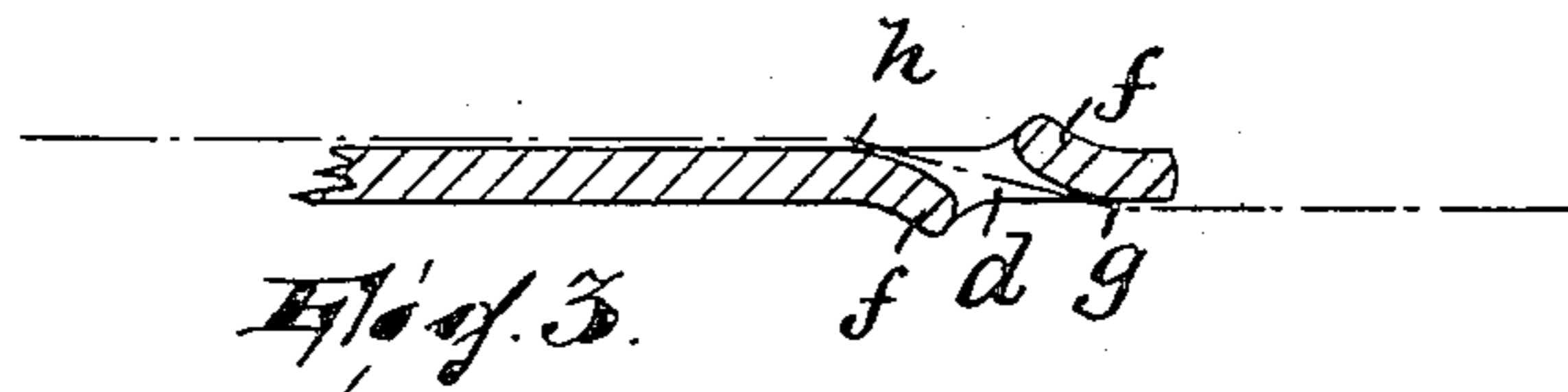
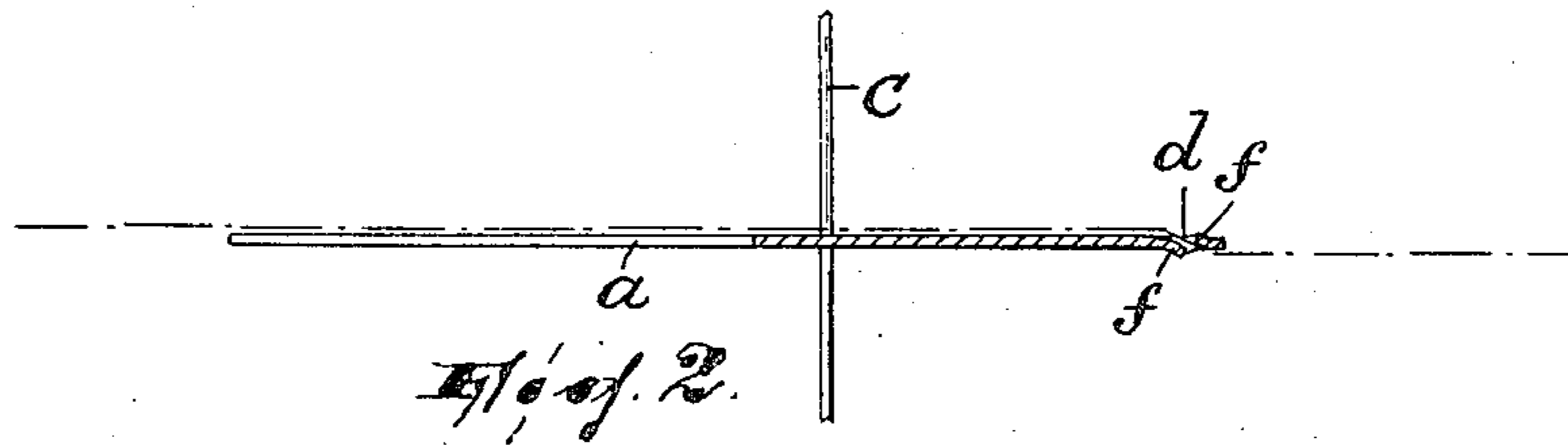
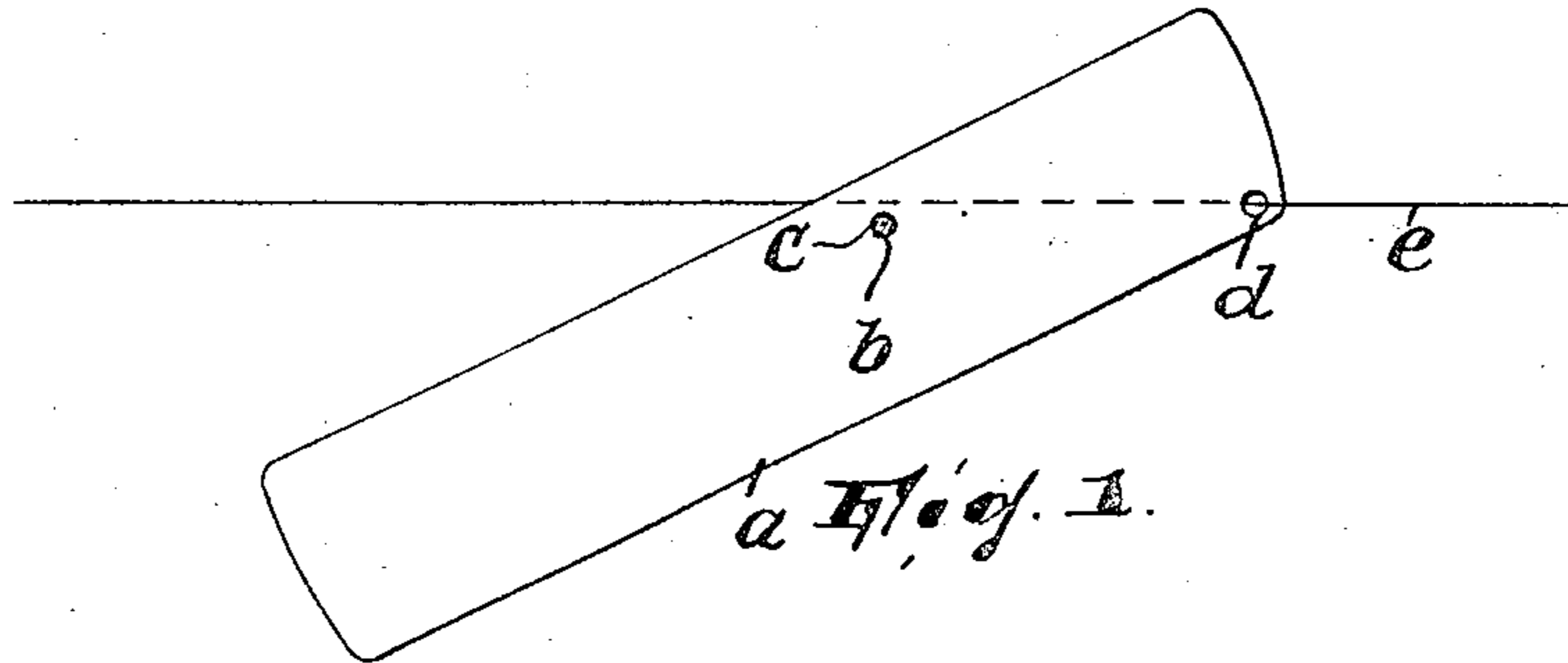
No. 808,419.

PATENTED DEC. 26, 1905.

J. B. WHITNEY.

FALLER FOR STOP MOTION MECHANISMS FOR TEXTILE MACHINERY.

APPLICATION FILED SEPT. 5, 1905.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## FALLER FOR STOP-MOTION MECHANISMS FOR TEXTILE MACHINERY.

No. 808,419.

Specification of Letters Patent.

Patented Dec. 26, 1905.

Application filed September 5, 1905. Serial No. 276,963.

*To all whom it may concern:*

Be it known that I, JOSEPH B. WHITNEY, a citizen of the United States, residing in Brooklyn, State of New York, have invented certain new and useful Improvements in Fallers for Stop-Motion Mechanisms for Textile Machinery; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention is an improvement in fallers or circuit-closers for stop-motion mechanisms for textile machinery. Such devices are commonly made of flat sheet metal formed quite thin, especially where they are used in connection with a warp in a loom, so as to crowd a considerable number of them into a small space, and they are formed with an aperture for the thread and if they are of the pivoted type with another for the pivot. I find in practice that notwithstanding the metal may be ever so thin a plain round thread-aperture is undesirable for at least three reasons—to wit, first, because it tends to a wearing of the thread and also of the faller near said aperture; second, because it makes the thread divert the faller out of true parallelism with the thread, and, third, because if made so large as to obviate these faults it affords too much freedom to the thread and unduly weakens or limbers the metal.

My present invention has for its object to provide a faller with a thread aperture or eyelet which will make the deflection in the thread as little abrupt as may be and which will present a smooth unabrasive contact for the thread without, moreover, forming undesirable projections on the sides of the faller, such as will tend to cause the fallers to fit into or interlock with each other and to thus prevent their free pivotal action independently of each other.

I have illustrated my invention in the accompanying drawings in connection with a faller of the pivoted type.

Figure 1 is a side view; Fig. 2, a sectional view on the thread-line in Fig. 1, and Fig. 3 a magnified view of a part of what is shown in Fig. 2.

In the drawings, *a* is a faller formed with a pivoting-opening *b*, which latter is arranged nearer one end of the faller than the other, so that there is a tendency for the faller to assume a perpendicular position and preferably nearer one long edge than the other, so that the faller tends to stand in a vertical plane. *c* is its pivotal support. Between the opening *b* and the nearer end of the faller is the thread aperture or eyelet *d*. *e* is a thread extending therethrough. The metal of the faller in the thread-line on opposite sides of and next adjacent to the aperture is deflected out of the general plane of the faller, as at *f*, on one side of the aperture in one direction and on the other side in the other direction. The deflection is preferably, though not essentially, not acute or sharp, but a gradual curve, so that the effect of presenting a smooth unabrasive contact for the thread is accentuated. A further effect is to lengthen the distance from the point, as *g*, where the thread leaves the plane of one side of the faller, to pass through the aperture to the point, as *h*, where the thread begins to assume the plane of the other side of the faller after leaving the aperture. This makes the deflection of the thread very gradual, which is desired as reducing wear on both the thread and faller, increasing the facility with which the thread moves through the faller, and preventing the thread from turning the faller out of its proper vertical plane parallel with the warp.

It is to be understood that while for the sake of clearly illustrating my invention I have shown and described in detail one form of my improved faller, I claim broadly—

1. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and the material thereof on one side of and only adjacent the aperture, in the thread-line, deflected out of the general plane of said body, substantially as described.

2. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and the material thereof on one side of and only adjacent the aperture, in the thread-line, deflected out of the general plane of said body in a gradual curve, substantially as described.

3. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like

body having a thread-aperture and the material thereof on both sides of and only adjacent the aperture, in the thread-line, deflected out of the general plane of said body, substantially as described.

4. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and the material thereof on both sides of and only adjacent the aperture, in the thread-line, deflect-

ed out of the general plane of said body in gradual curves; substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of August, 1905.

JOSEPH B. WHITNEY.

Witnesses:

JOHN W. STEWARD,

WM. D. BELL.