

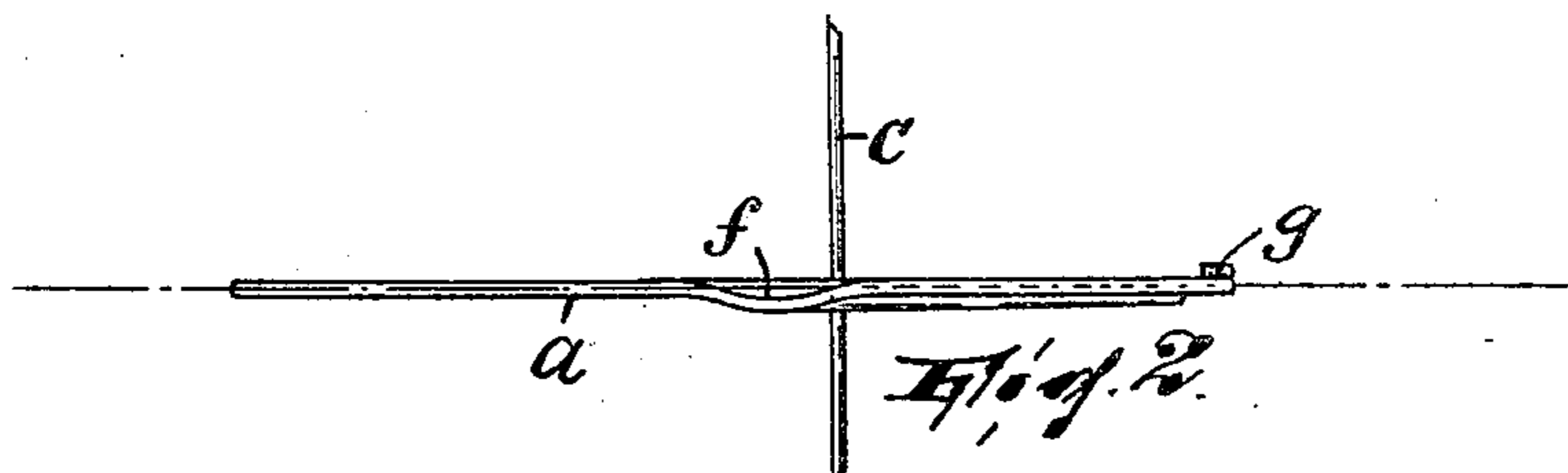
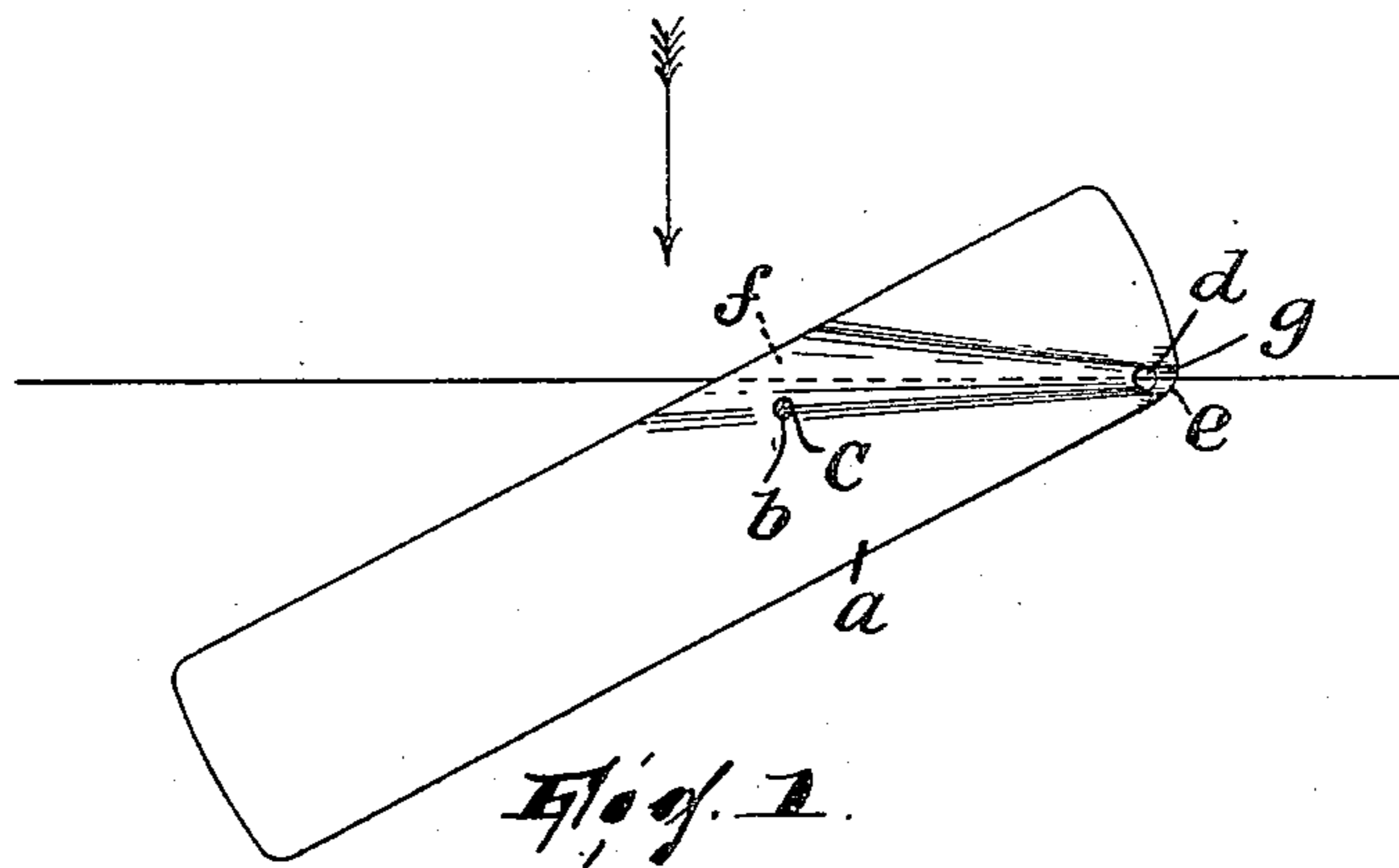
No. 808,420.

PATENTED DEC. 26, 1905.

J. B. WHITNEY.

FALLER FOR STOP MOTION MECHANISMS FOR TEXTILE MACHINERY.

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WITNESSES:

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FALLER FOR STOP-MOTION MECHANISMS FOR TEXTILE MACHINERY.

No. 808,420.

Specification of Letters Patent.

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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 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 which shall be without these several faults and which shall, moreover, in certain specific forms thereof present other advantages hereinafter to be pointed out.

I have illustrated my invention in the accompanying drawings in connection with a faller of the pivoted type, Figure 1 showing the preferred form thereof; Fig. 2, an edge view looking in the direction of the arrow in Fig. 1, and Fig. 3 an enlarged sectional view on the thread-line in Fig. 1.

In the drawings, *a* is the 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.

d is the thread aperture or eyelet. Prefer-

ably this is formed near one long edge of the faller and in the pivoted form of faller near the angle *e* of the faller, so that when the faller is in operative position, as shown, held by the thread, an appreciable portion of the faller will project above the thread-line and so keep it from accidental displacement up between the wrong threads.

f is a groove or channel which terminates in the eyelet or aperture *d* at one end and at the farther long edge of the faller at the other, the same being formed by bending the metal. The thread *g* lies in this groove, and so being thus disposed in a plane which approximates that of the opposite face of the faller passes free through the aperture *d*. This effect may be accentuated without making the channel unduly deep by bending or grooving the metal at the angle *e* in a direction reverse to the bend forming the channel *f*, as at *g*. The result is that the thread and faller are saved from undue wear by contact with each other where the thread passes through the aperture *h*, and the thread does not tend to throw the faller out of true parallelism with itself. I prefer to make the groove convergent from the edge of the faller to the aperture *d*, as shown. The object of this is as follows: It is apparent that bends in the fallers going to form the channels would the more fit into each other the closer the fallers are disposed to each other, which effect would have a tendency to prevent individual fallers whose threads may have broken from dropping as intended. By, however, making the channel convergent or tapering, as described and shown, the major portion of the channel is very shallow in proportion to its width, so that the interlocking effect referred to is eliminated and the fallers drop independently of each other with substantially the same freedom as without the channel.

It is to be understood that while for the sake of clearly illustrating my invention I have shown and described in detail the preferred 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 located near one edge thereof and a groove or elongated depression, located in one side of said faller in the thread-line, extending from the aperture to a more remote edge of said faller, substantially as described.

2. A faller for stop-motion mechanisms for

textile machinery consisting of a sheet-like body having a thread-aperture located near one edge thereof and bent to form a groove or elongated depression disposed in the thread-line and extending from the aperture to a more remote edge of the faller, substantially as described.

3. A pivoted faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and a groove or elongated depression in one side of said faller, extending from said aperture to one edge of the faller, and another groove or elongated depression, in the other side of said faller, extending from said aperture to another edge of said faller, substantially as described.

4. A pivoted faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and bent to form a groove or elongated depression, in one side of said faller, extending from said aperture to one edge of the faller, and another groove or depression, in the other side of said faller, extending from said aperture to another edge of the faller, substantially as described.

5. A pivoted faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and a groove or depression, in one side thereof extending from said aperture to one edge of

the faller and tapering toward the former, substantially as described.

6. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and a relatively shallow groove or depression, extending from said aperture to one edge of the faller, substantially as described.

7. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having a thread-aperture and a relatively shallow groove or depression extending from said aperture to one edge of the faller and tapering toward the former, substantially as described.

8. A faller for stop-motion mechanisms for textile machinery consisting of a sheet-like body having its thread-aperture located nearer one edge of the faller than the opposite edge and having grooves extending, in the thread-line, from the aperture in opposite directions to the edges of the faller, one groove being in one side and the other in the other side of said faller, 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.