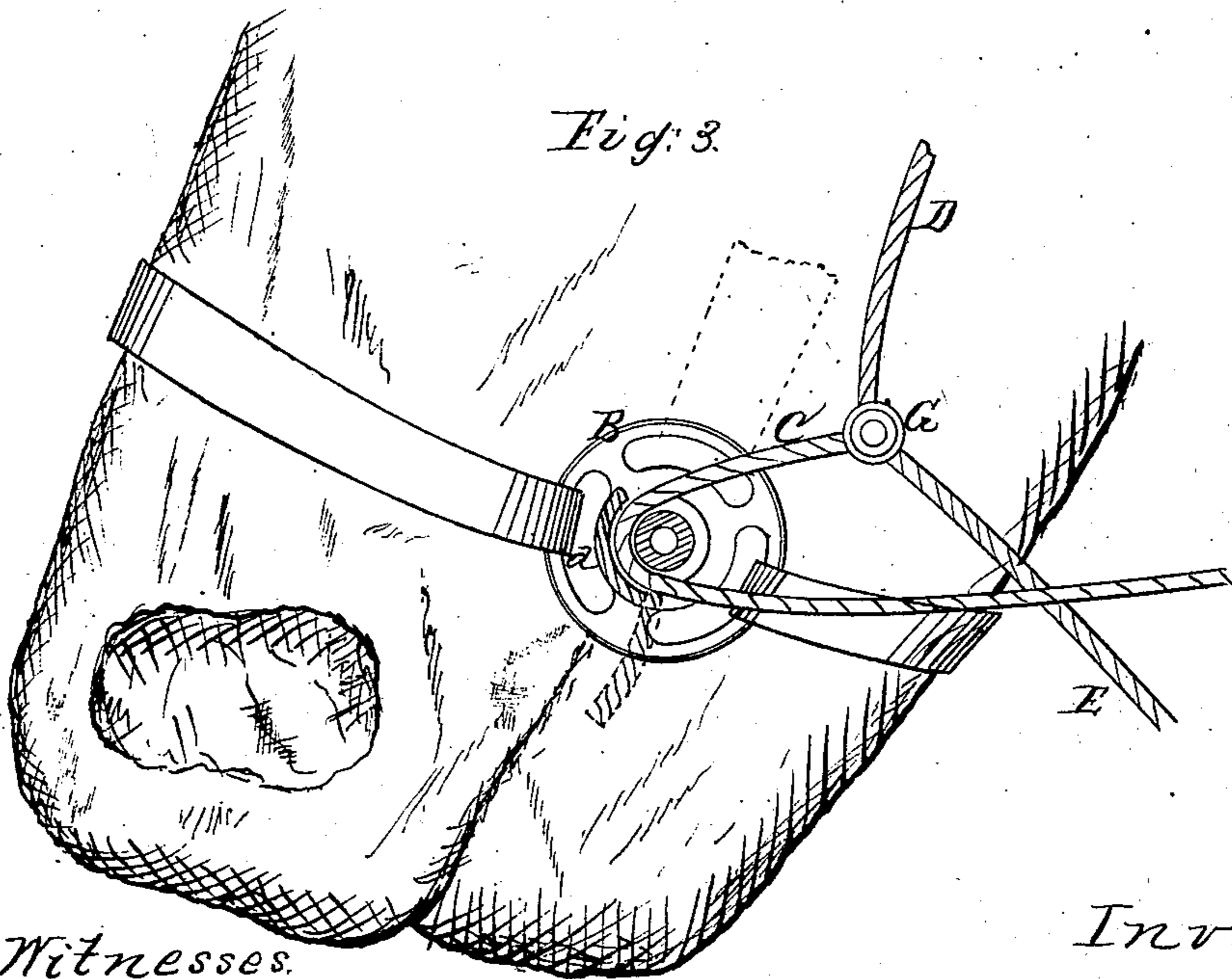
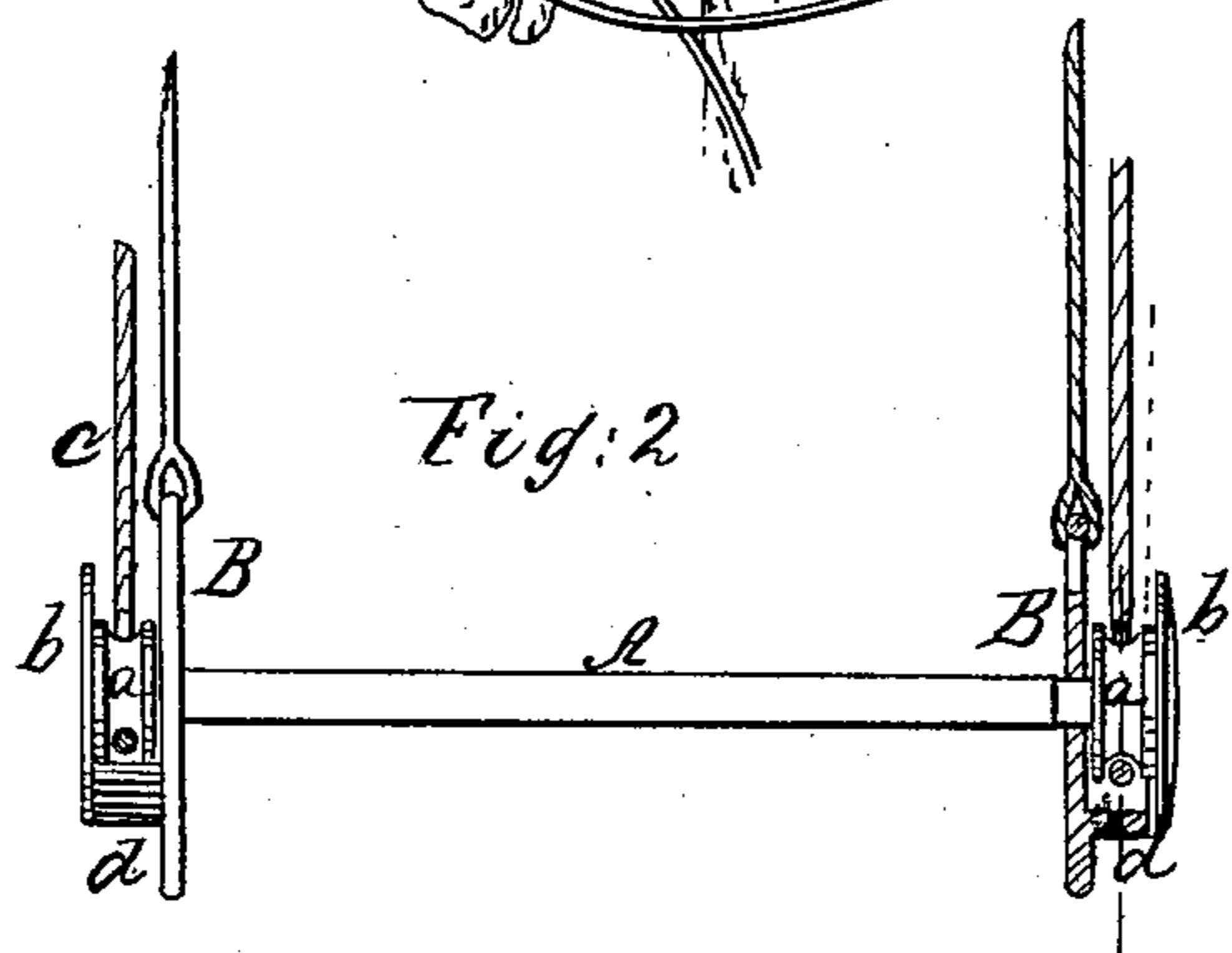
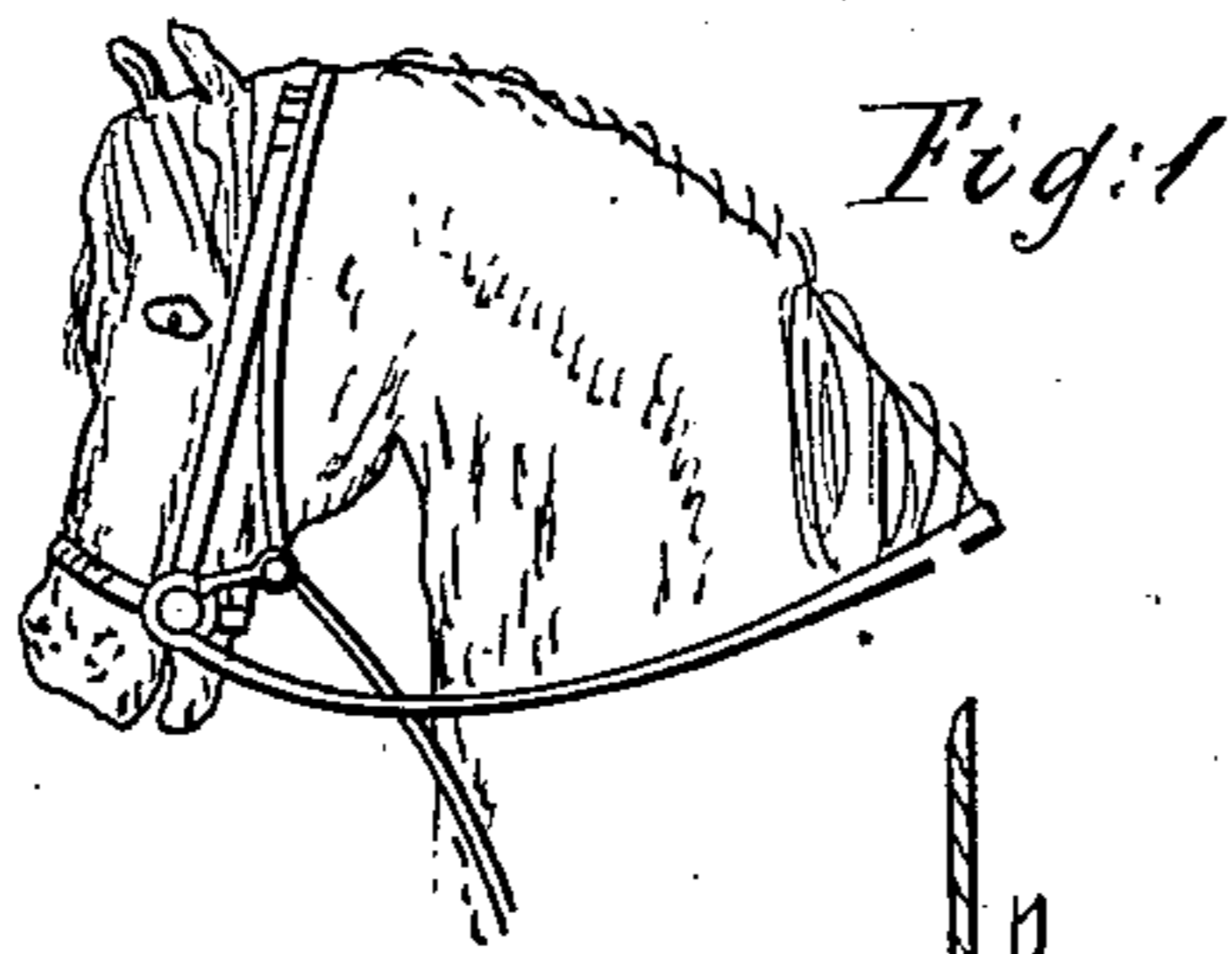


W. F. Clark,  
 Bridle,  
 No. 84,170, Patented Nov. 17, 1868.



Witnesses.

G. C. Cotton  
 Alex. F. Roberts.

Inventor

W. F. Clark

per M. M. & L.  
 Attorneys.

# United States Patent Office.

WILBUR F. CLARK, OF HAGAMAN'S MILLS, NEW YORK.

Letters Patent No. 84,170, dated November 17, 1868.

## IMPROVED BRIDLE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILBUR F. CLARK, of Hagaman's Mills, in the county of Montgomery, and State of New York, have invented new and useful Improvements in Bridle-Bits; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my invention, when on a horse.

Figure 2 is a detail view, showing the construction of the bit.

Figure 3 is an enlarged detail view of the bit and its accessory gear, when applied as in fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple bit and bridle for horses, which combines several advantageous features, each of which is herein duly set forth.

The bit consists of a straight round bar, A, fitted loosely in the side plates B, to which the headstall is attached, in the usual manner.

The bar A is provided with pulleys *a*, having broad flanges *b*, to keep the rein C on the pulleys.

The rein C is connected with a gag-runner, D, passing from side to side over the horse's head, as shown.

E are martingales, and are joined to the gag-runner and rein at the same point, which may be provided with an ornamental button or plate, G, at the point of junction on each side.

*d* are curved projections from the plates B, and serve to keep the rein from getting off from the pulleys, and also to check up the animal's head, in a manner to be hereinafter described.

When the gag-runner is taken up short, so that the junction G will not be brought into contact with the bit, the bit will revolve when the reins are drawn by the action of the pulleys, as will be obvious. This revolving action is advantageous, as it will twist the

bit from between his teeth, in case he should seize it and attempt to run. The sensation produced by the revolving bit will also cause his attention to be drawn from his own vicious desires or from any fright he may experience.

When the gag-runner is let out, however, so that the junction G aforesaid will come down to the bit, the latter will not revolve, but will then act as an ordinary bit.

The arrangement of the gag-runner, rein, and martingales in the manner shown, causes them to act as a curb upon the animal, and gives a purchase upon the bit, as will be obvious.

The curved projections *d*, before alluded to, serve to act as a check, in the following manner:

When the reins are slacked suddenly, after drawing up the animal's head, the reins, falling down in a bight, will jam against the lower corners of the parts *d*, and thus hold his head up. This operation is illustrated in fig. 3, the slacked rein being shown in blue color.

By slacking the reins in the usual manner, they will slide over the pulleys when the horse puts down his head to drink, by which it will be seen that a check-rein will not be needed, and the horse may drink without the driver getting from his seat.

When the reins are drawn in with ordinary tension, the combined action of the gag-runner, reins, and martingales causes the animal to hold his head up, with the neck bowed in a spirited style.

I claim as new, and desire to secure by Letters Patent—

1. The revolving bit A, having pulleys *a b*, and working in the plates B, substantially as herein described.

2. The combination of the gag-runner D, rein C, and martingales E, with the bit A, B B, *a b*, *a b*, substantially as herein described.

The above specification of my invention signed by me, this 1st day of August, 1868.

WILBUR F. CLARK.

Witnesses:

J. M. SHULER,  
THOMAS NEWMAN.