S. Scholfield.

Carrier for Braiding Mach.

No. 70,273. Patented Oct. 29, 1867.

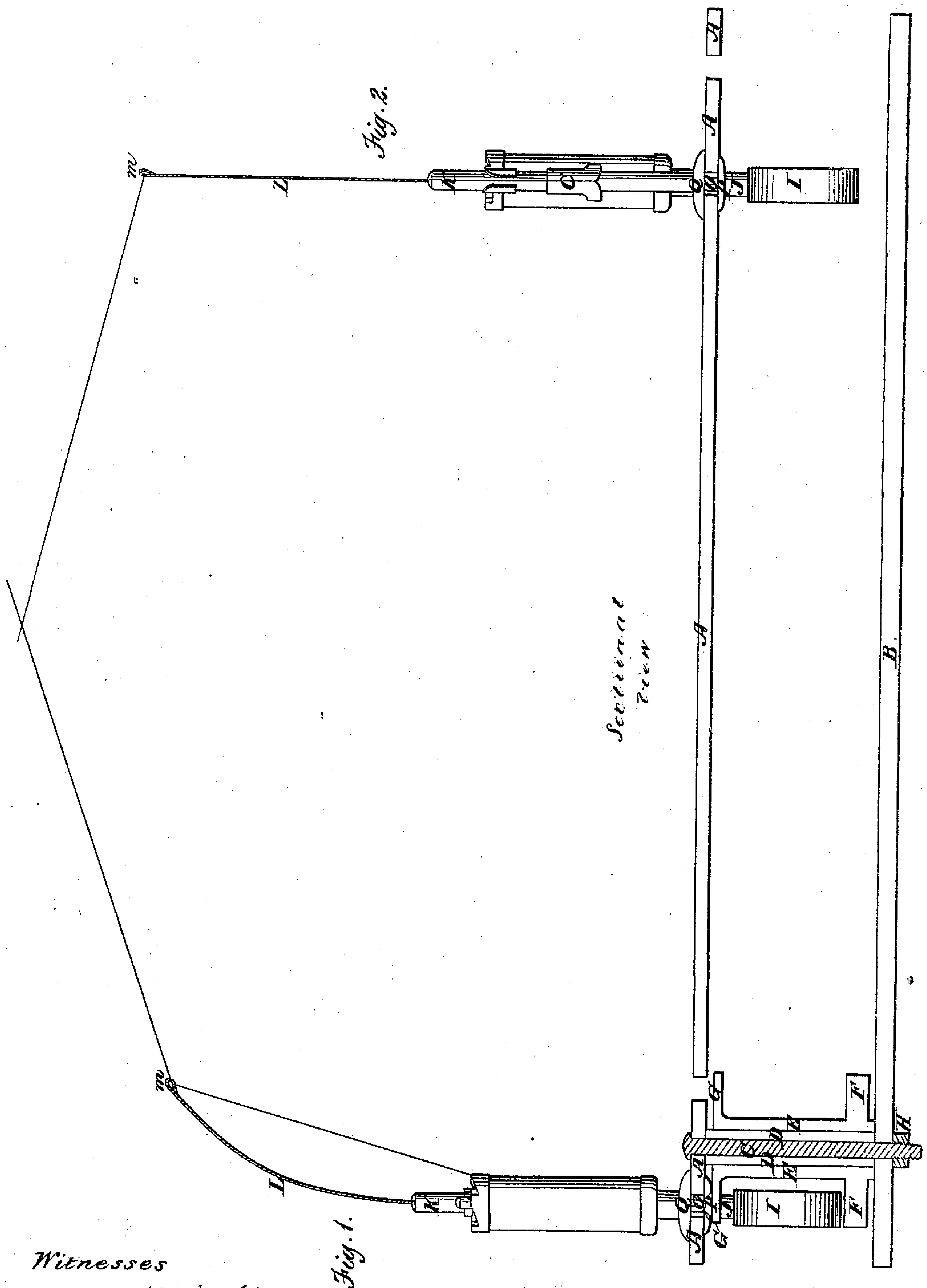

Fig. 2.

Fig. 1.

Witnesses

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SOCRATES SCHOLFIELD, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 70,273, *dated October* 29, 1867; *antedated October* 16, 1867.

IMPROVEMENT IN BRAIDING-MACHINE CARRIERS.

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, SOCRATES SCHOLFIELD, of Providence, in the county of Providence, and State of Rhode Island, have invented an improved Carrier or Racer for Braiding Machines; and do hereby declare that the following is a full and exact description, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in constructing and arranging the extreme or outer eye or point, through which the thread passes from the spool on a braiding-machine carrier or racer, so that such eye or point may yield with the tension of the thread as the carrier or racer passes around the gears or in the grooved plate of a braiding machine; also, in counterbalancing the centrifugal force of the upper portion of the carrier or racer by a suitable extension or enlargement between the driving-horns and gears of the machine.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The drawing, figs. 1 and 2, represents the carrier in common use, with the addition of a spring, L, secured to the upper end of the standard K, so as to stand in an erect or vertical position. The upper end of the spring L may be furnished with an eye, *m*, through which the thread is to pass, or the wire which forms the upper end of the spring may be bent in a sort of open hook to catch and hold the thread, or any other device for confining the thread and causing it to be delivered from this yielding point may be used. This spring, instead of being attached to the standard K, may be attached to the spindle passing through the centre of the spool, or, when the spool is arranged with its axis horizontally, the spring may be attached to any point corresponding in position and convenience to those before mentioned. When the thread from the spool is properly arranged and the tension-weight adjusted, the yielding eye or point *a*, through which the thread passes, will not partake of the entire motion of the carrier, being drawn from the line of such motion by the action of the thread and inertia of the tension-weight, thus allowing the base of the carrier or racer to follow a curvilinear track around the gears or in the grooves of the machine without imparting an excessive and injurious motion to the tension-weight.

Figure 1 represents the position of the eye or point *m* when the carrier is passing on the outside, and Figure 2 when passing on the inside curve of the machine.

In the drawing, A A A A represent the grooved plate of the machine, B the lower plate, F the gear, G G the horns or projections for driving the carriers, C the bolt, and D the bushing for holding the gear in place, and N the point where the braid is formed.

The lower end of the shank J is to be extended or enlarged between the horns G G and gear F, such extension or enlargement constituting a counterbalancing weight to operate against the centrifugal force of the upper part of the carrier. By means of this weight I cause the carrier to be balanced upon the edges of the groove in which it runs, causing it to pass around the curves steadily, and without striking from side to side, as in the common machine, thus obtaining a greater speed with less driving power.

I am aware that springs have been used by Veer Kamp and Leopold in their machine patented July 24, 1866, in combination with a tension-weight for the purpose of preventing an excessive strain upon the thread or an injurious motion of the weight; I am also aware that the same is used in the machine patented by Darker, August 21, 1866; therefore I do not make a general claim to the combination of a spring and tension-weight for the purpose of regulating the delivery of thread from a spool, but what I claim as my invention, and desire to secure by Letters Patent, is—

So arranging the outer or extreme eye or point of a braiding-machine carrier or racer that it may be made to yield with the tension of the thread as such carrier or racer passes around the gears or in the grooves of a braiding machine, substantially as described.

I also claim balancing the carrier or racer upon the edges of the groove in which it runs, substantially as specified.

SOCRATES SCHOLFIELD.

Witnesses:

A. M. PAULL,

A. R. ABBOTT.