

W. SCHUYLER.

Horse-Powers.

No. 133,546.

Patented Dec. 3, 1872.

Fig. 1

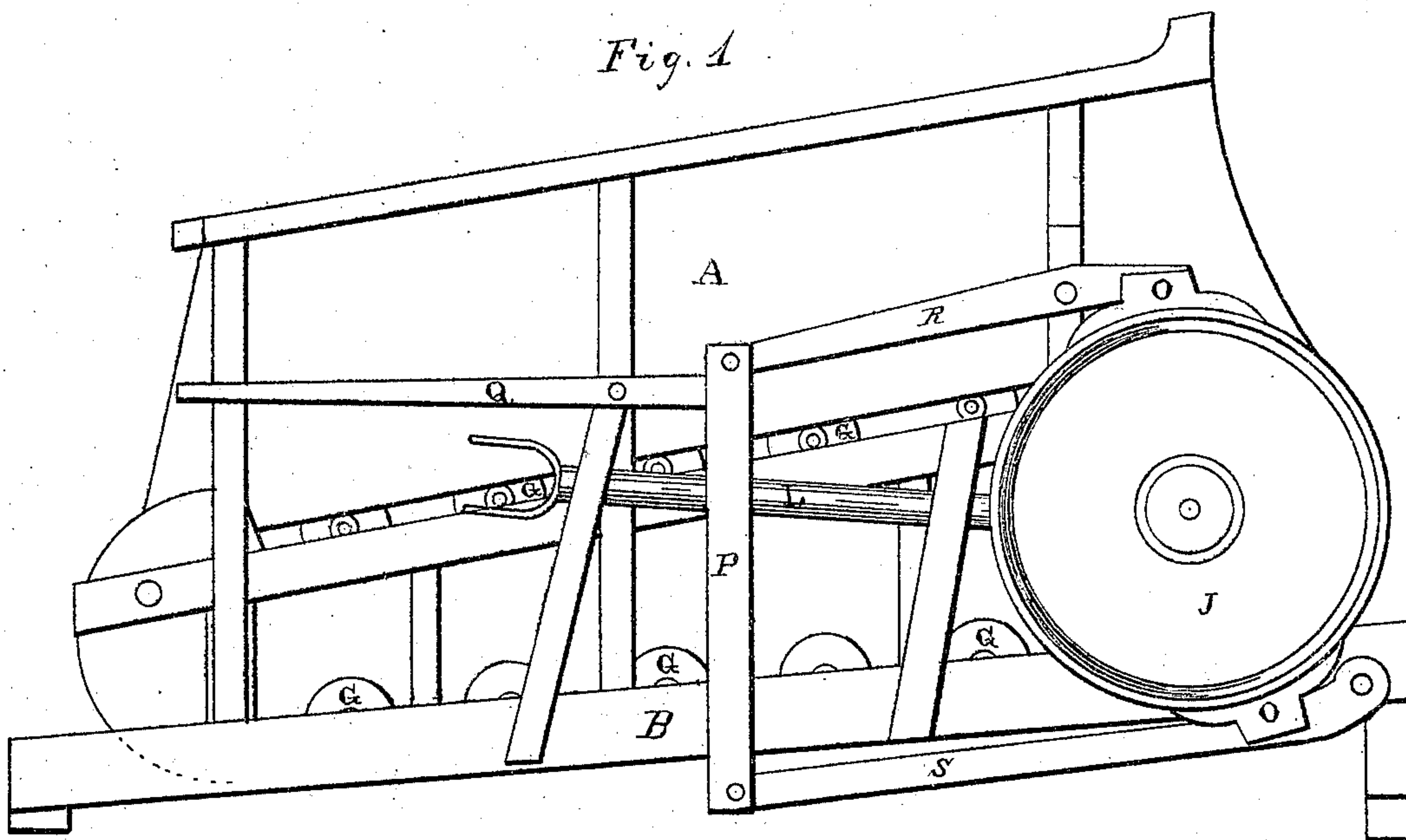


Fig. 2.

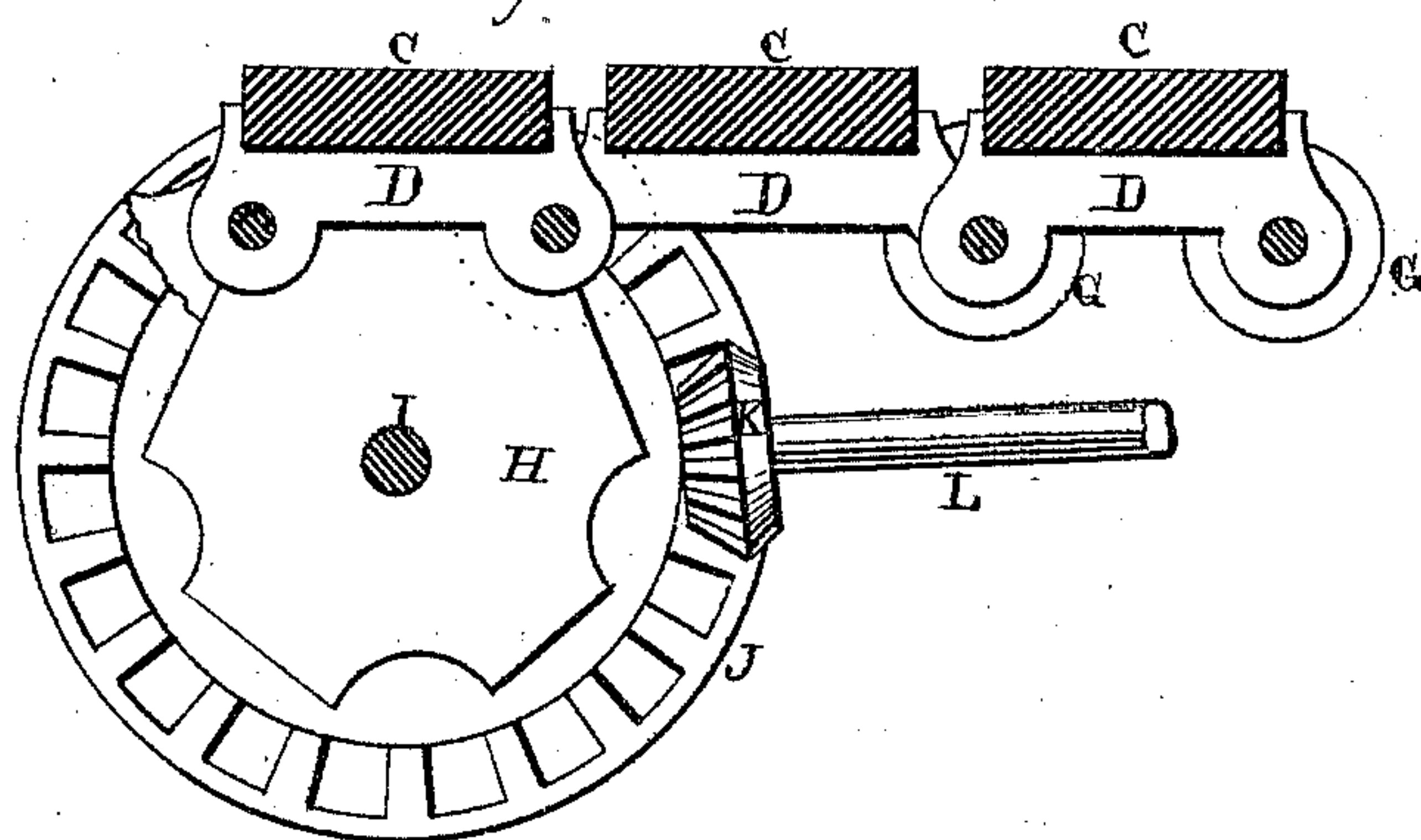
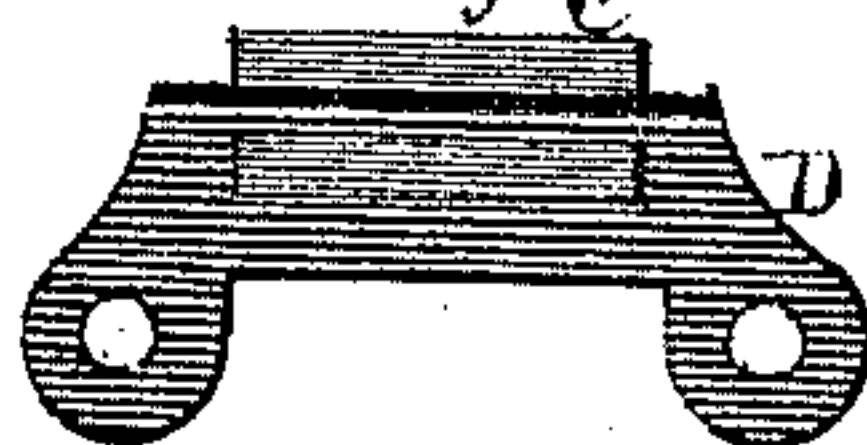


Fig. 3.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM SCHUYLER, OF ORANGEVILLE, PENNSYLVANIA.

## IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. 133,546, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, WILLIAM SCHUYLER, of Orangeville, county of Columbia and State of Pennsylvania, have invented certain new and useful Improvements in Tread-Mill Horse-Powers, of which the following is a specification:

The nature of my invention relates to the construction of a tread-mill; and consists in the peculiar arrangement and construction of the gearing, which is so made that the power can be applied directly to the machine to be driven without the use of a belt; in the peculiar construction of the brakes; and the manner of attaching the cross-pieces to the links so as to form the tread-mill, as will hereinafter be more fully set forth.

Figure 1 is a side elevation of my invention, and Figs. 2 and 3 detailed sectional views of the same.

A B represent the frame, which may be constructed in any suitable manner. The tread-mill consisting of the cross-bars C, links D, and rollers G, shown in Fig. 2, are of peculiar construction. The ends of each cross-bar C are bifurcated, one part passing through a slot made in each link D, and the other part extending up over the top, as shown in Fig. 3. By this construction the two parts are held securely together without being fastened by bolts, and can be readily taken apart and put together again. Each link consists of a slotted plate, having its ends made of a semi-spherical shape, so as to fit in the recesses of the wheel H placed upon the driving-shaft I. As this shaft is caused to revolve by the movement of the tread-mill the motion is communicated to the large flanged wheel J secured to its end. This wheel has its inner face cut by a series of cogs, into which the beveled gear or pinion K secured to the short shaft L meshes, and a wide rim or flange, upon which the brakes operate. The shaft L extends backward, and has its

bearings on a plane with the frame, and to its rear end a tumbler or any suitable connecting-gear is secured, so that the power may be applied directly to the machine to be driven without the use of a belt.

A tread-mill power, constructed as I have described, will operate with less friction, run more easily, and can be placed at an angle at from six to eight inches less than those now in common use.

Bearing upon the rim of the wheel J are two brakes, O, connected together by bars R S and the upright bar P, and controlled by the lever Q.

The ordinary brakes, as applied to the tread-mill, are seldom if ever sufficient to instantly stop the machine, and cannot always be relied upon; but by the use of the double clamps upon a wide flanged wheel the motion can be checked or stopped at will.

Having thus described my invention, what I claim as new, and for which I desire to secure Letters Patent, is—

1. A tread-mill horse-power, in which the power is connected to the machine to be driven without the use of a belt, arranged substantially as set forth.

2. In combination with a flanged wheel of a tread-mill horse-power, the double clamped brakes O, bars R and S, connecting-bar P, and lever Q, when arranged to operate substantially as specified.

3. The combination of the cross-bars C, links D, wheels H J K, and shaft L, when all are combined to form a tread-mill horse-power, as shown and described.

In testimony that I claim the foregoing as my invention I hereto affix my signature.

WILLIAM SCHUYLER.

Witnesses:

WM. BELLES,  
W. H. SMITH.