

A. D. Crane,

Horse Power.

No 8,028.

Patented Apr. 8, 1851.

Fig: 6.



Fig: 1.

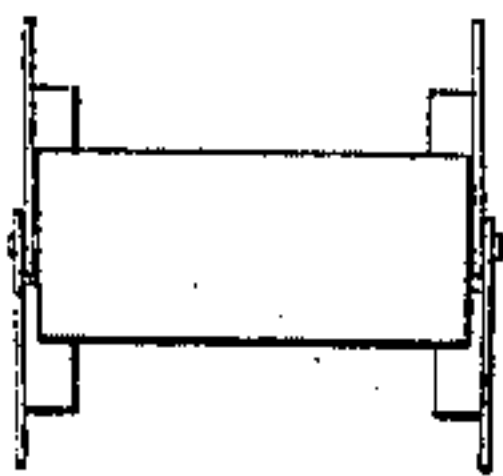


Fig: 3.

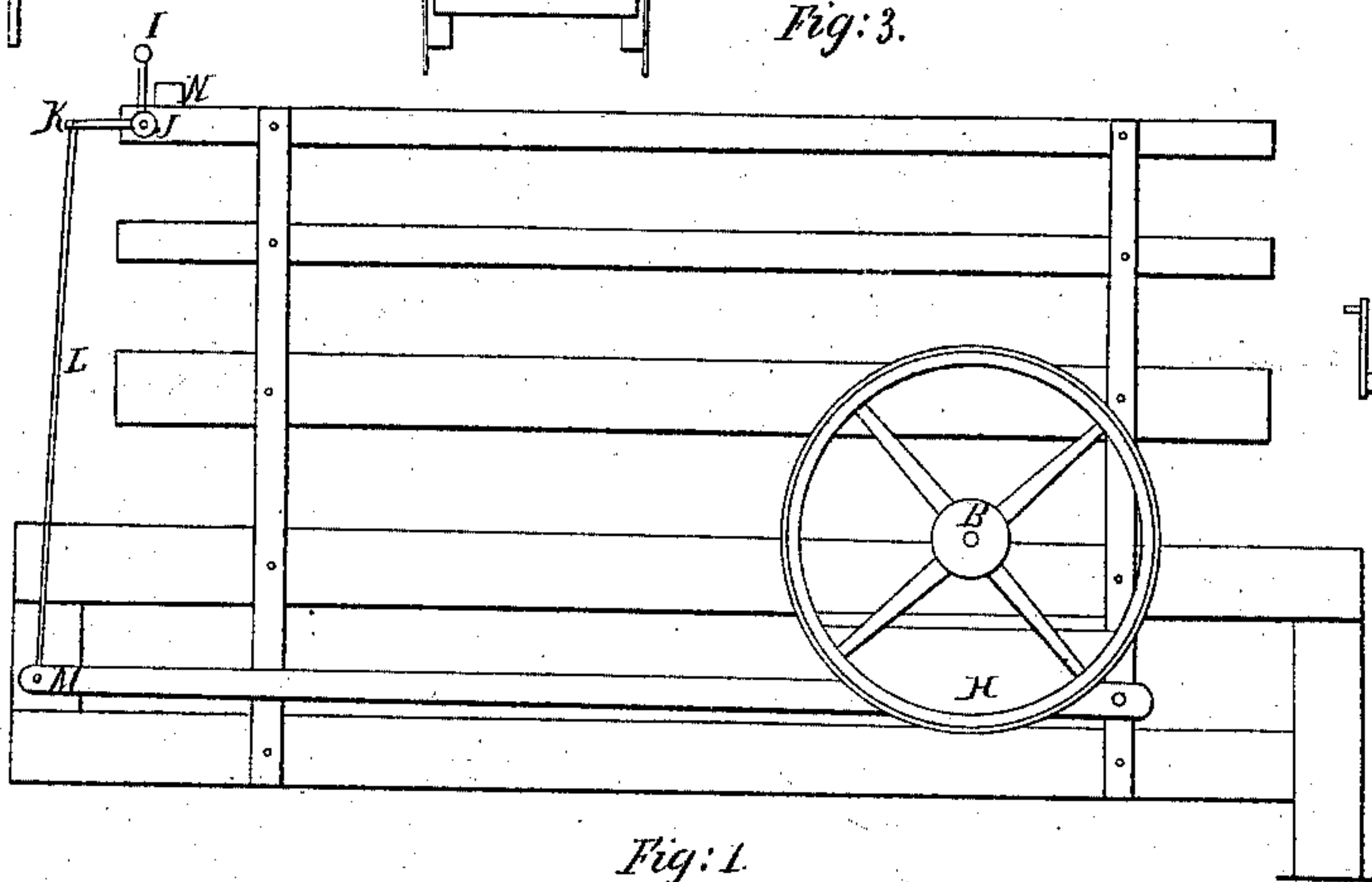


Fig: 5.

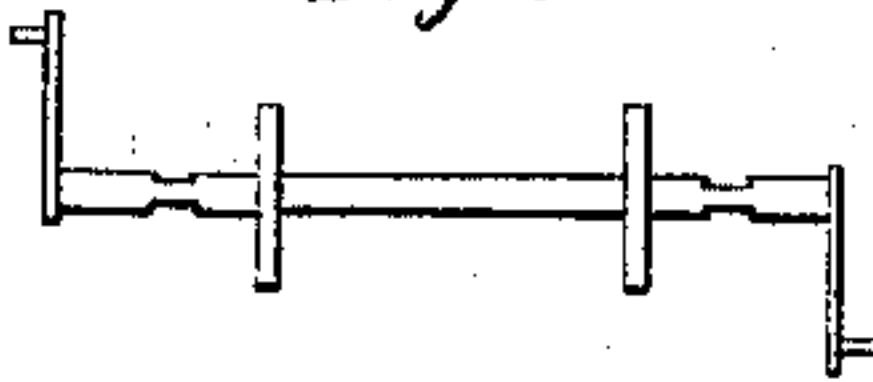


Fig: 4.



Fig: 1.

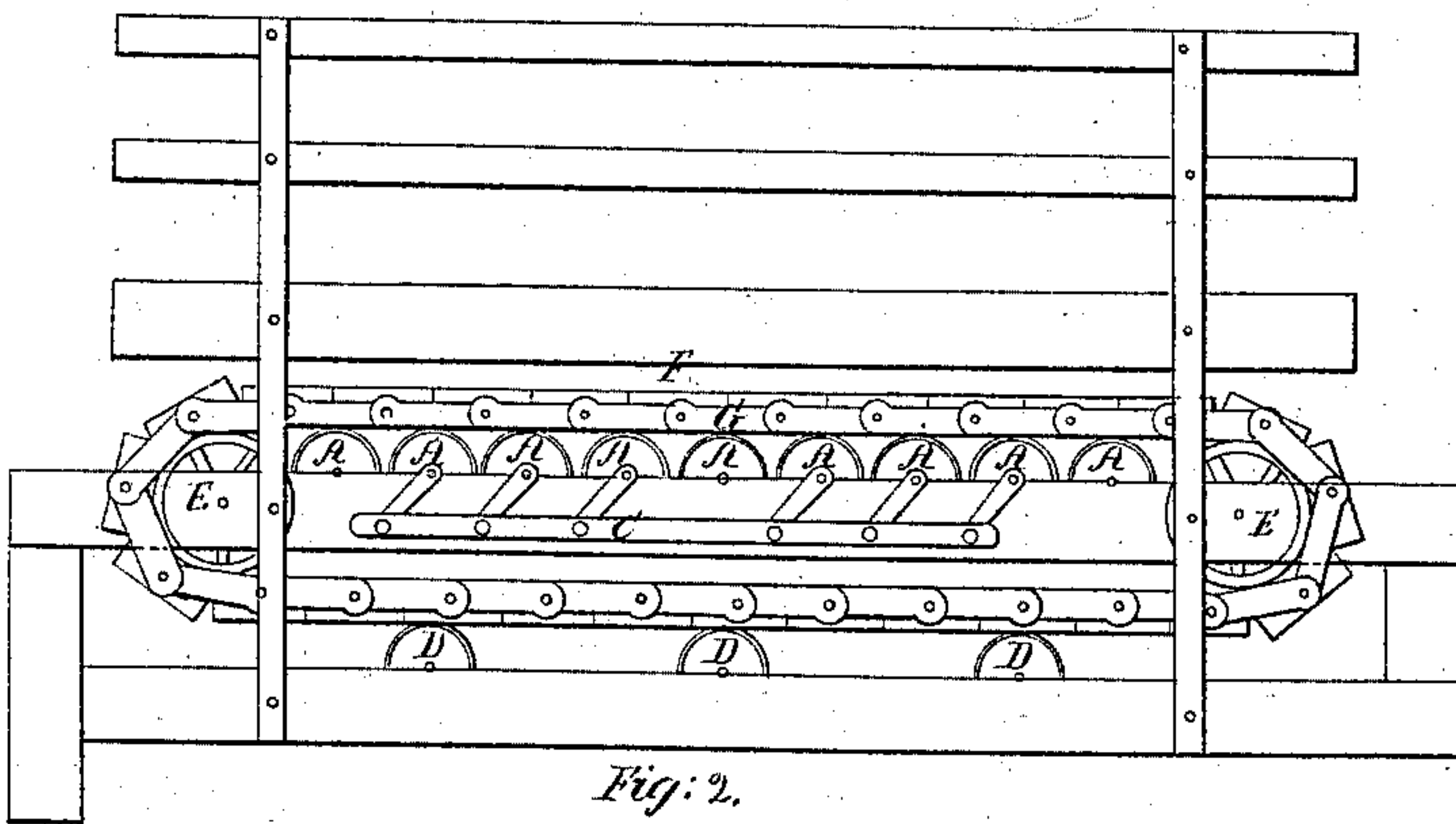
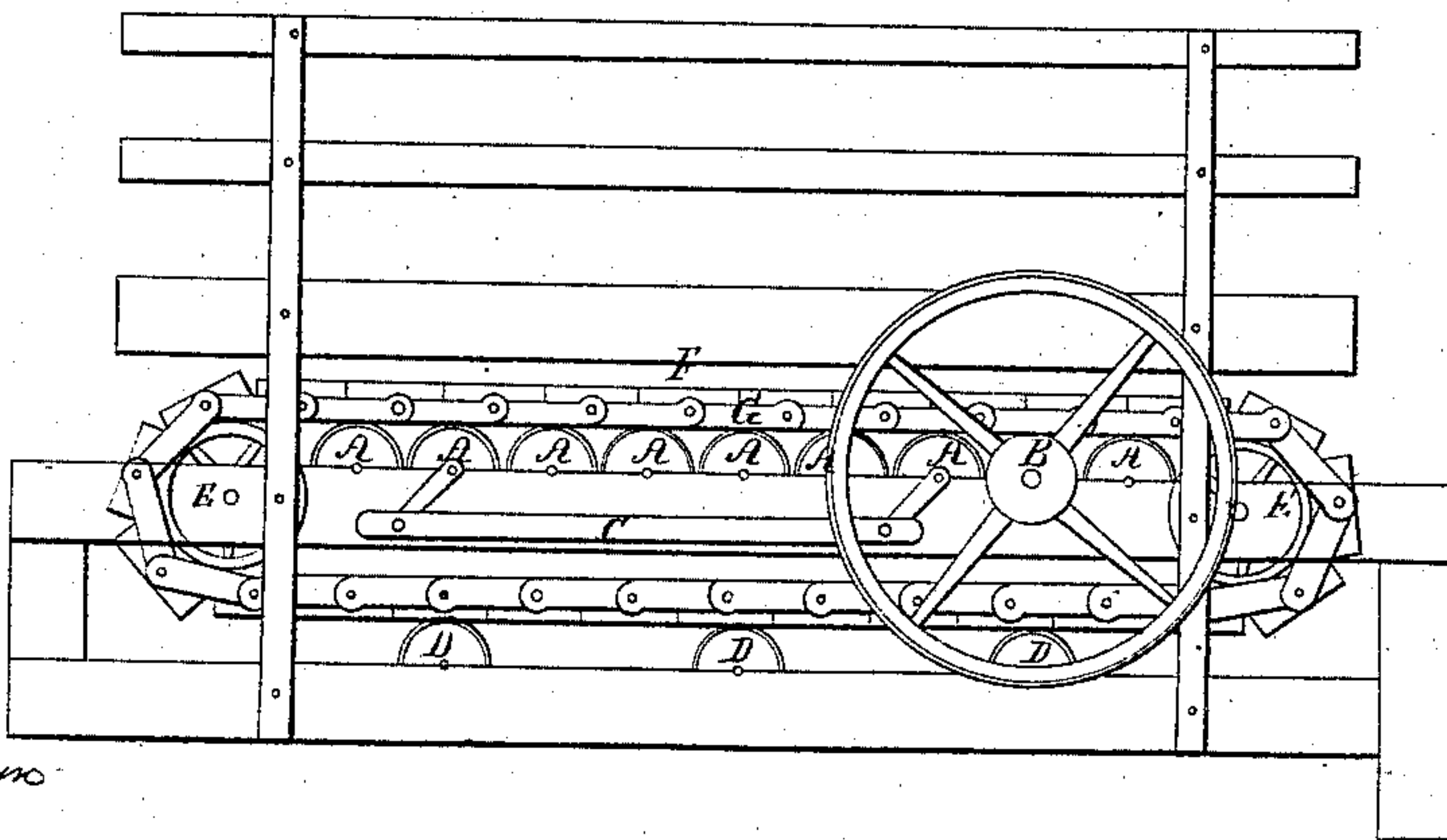


Fig: 2.



Witnesses;
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Gov. D. Hamer

Inventor;
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UNITED STATES PATENT OFFICE.

AARON D. CRANE, OF NEWARK, NEW JERSEY.

HORSE-POWER.

Specification of Letters Patent No. 8,028, dated April 8, 1851.

To all whom it may concern:

Be it known that I, AARON D. CRANE, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in the Construction of a Horse-Power Machine, which is described as follows, reference being had to the annexed drawings of the same, making a part of this specification.

Figure 1 is a view of the left side of the machine, and Figs. 2 and 3 of the right side.

The pulleys or rollers marked A, Figs. 1 and 2, are those which sustain the platform and horse, and transmit the power to the driving pulley B, Figs. 2 and 3, by means of cranks connecting the pulleys together by a bar as at C, Figs. 1 and 2. The cranks on the side in Fig. 2 are set quartering to those on the side in Fig. 1 for the purpose of assisting it over what is commonly called the dead center of a crank motion. Fig. 5 gives a side view of the pulleys and cranks. The pulleys D, Figs. 1 and 2 are for the purpose of supporting the platform while passing under the pulleys A, and the wheels or pulleys E, Figs. 1 and 2, are larger than the other pulleys, for the purpose of increasing the curve of the platform in its revolutions.

A side view of these pulleys is given in Fig. 6. A side view of the platform is given at F, Figs. 1 and 2. It is composed of pieces of wood. A top view of one is given in Fig. 7, together with two links of the chain. These pieces are connected together by a flat chain G, Figs. 1 and 2, by means of bolts, which form the hinge or joint of the chain by running through the center of each piece or block of wood composing the platform. Each piece or link of the chain has a lip or flange on the lower side as in Figs. 4 and 7, for the purpose of supporting and keeping the pieces composing the platform

from turning on the hinge or joint, by the weight of the horse.

Fig. 3 gives a side view of the brake used on the inside of the inner rim of the driving pulley B, as at H. An end view of the whiffletree is given, as at I, the center of which works on an upright axle fastened in the middle of the shaft J which extends across the machine. In this shaft is an arm K connected by the rod L, with the end of the lever of the brake H as at M. When the horse draws on the whiffletree, the brake is raised; the axle in the center of the shaft J on which the whiffletree works strikes against the cross bar N, thereby preventing the brake from raising more than a proper distance.

The advantages of this machine are that it costs less, and that there is much less friction and wear in this than others now in use, from the fact that no cog wheels or rack is used, and consequently much more power obtained, the attrition caused and adhesion existing between the platform and the rollers or pulleys, being found sufficient for transmitting all the power a horse is able to give. And that by the addition of the brake acting as a governor, the motion of the machine is more regular and steady, thereby preventing the horse from falling on his knees when the work is taken off.

What I claim as my invention, and desire to secure by Letters Patent, is—

The manner of arranging and connecting the whiffletree and brake, so that when the horse is drawing the brake is off the wheel or pulley, and when not, is on, and acting as a governor, as hereinbefore described for the purposes hereinbefore set forth.

AARON D. CRANE.

Witnesses:

ABM. V. SPEAR,
MOSES G. CRANE.