

C. ROBERTS.
HORSE-POWER.

No. 172,174.

Patented Jan. 11, 1876.

FIG.1.

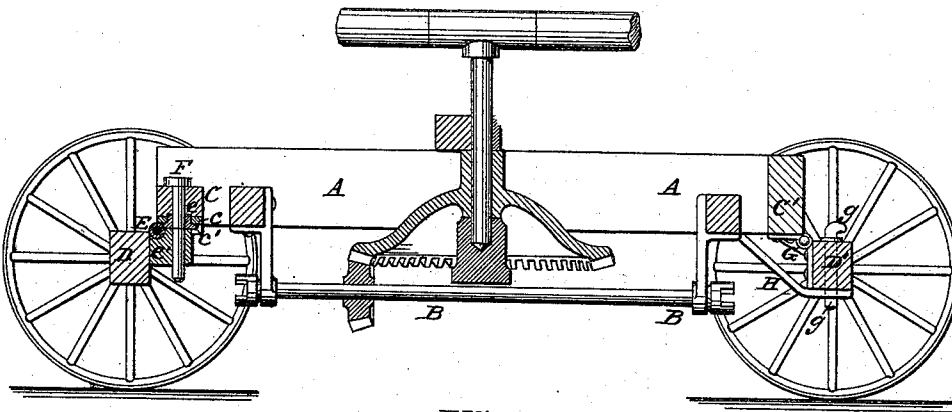


FIG. 2.

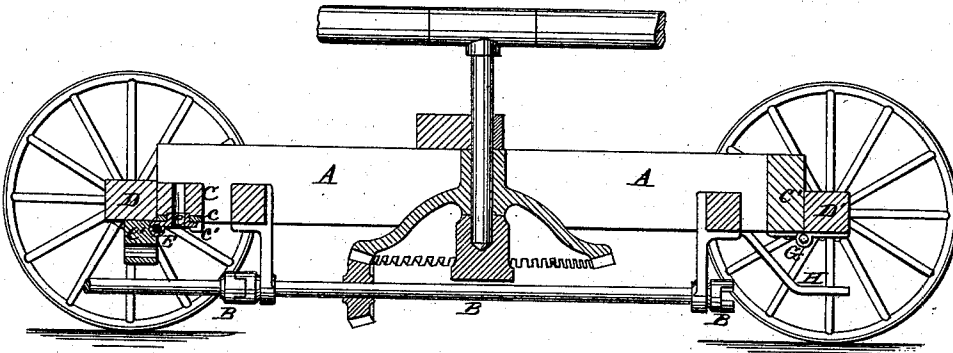
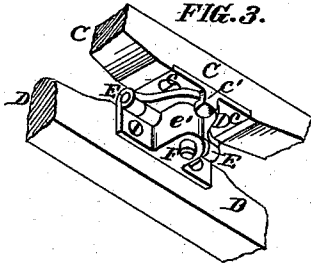


FIG. 3.



ATTEST:

Robert Burns.
Chas Gooch

INVENTOR:

Cyrus Roberts
By Knights
Attorneys

UNITED STATES PATENT OFFICE.

CYRUS ROBERTS, OF THREE RIVERS, MICHIGAN.

IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. **172,174**, dated January 11, 1876; application filed December 11, 1875.

CASE B.

To all whom it may concern:

Be it known that I, CYRUS ROBERTS, of Three Rivers, in the county of St. Joseph, in the State of Michigan, have invented a new and useful Improvement in Horse-Powers, which improvement is fully set forth in the annexed specification, reference being had to the accompanying drawings.

This improvement has much similarity to my invention described in my application (marked A) of even date herewith. In my present case (B) the axles are attached to the bolsters by one of the upper corners, as shown; and this invention consists in hinging the axle to bolster of the horse-power frame at one side of the bolster, so that by giving a quarter turn to the axle it will come against the side of the bolster, and thereby allow the horse-power frame to descend to bring its tumbling-shaft near to the ground and below the level of the axles. When used as a horse-power, and when it is required to move to another place, the axles are again turned down, so as to raise the frame, when the top of the axles are level with the bottom of the bolsters. The fore axle is attached to the bolster or front bar of the frame by means of a central hinge, the top member of which is provided with a boss that turns in a bearing-plate on the under side of the bolster, to form a fifth-wheel. The lower member has a side boss through which the king-bolt passes, to hold the parts in position when the frame is elevated.

In the accompanying drawing, Figures 1 and 2 are sectional views, showing my improved horse-power in its elevated and lowered positions, respectively. Fig. 3 is a perspective view, from the under side, of my improved hinging device.

A is the frame of any suitable construction, carrying the power mechanism which operates the horizontal tumbling-shaft B. The frame A has the usual bolsters C C', to which the axles D D' are hinged as follows: The front axle D has secured to its side one part of the

hinge E, the other part *e* of which has a projecting boss that turns in a recess in a bearing-block, *c*, secured to the axle D, and is held in position by the hooked lug *c'* engaging under the part *e* of the hinge. The part of the hinge that is secured to the axle D is provided with a boss, *e'*, having a central perforation for the passage of the king-bolt F. The rear axle D' is hinged to its bolster C' by plain hinges G, and is secured in position by the pins *g* passing through axle D', and the straps H secured to the frame A of the horse-power.

By the manner of hinging shown, the axles require to be turned only one-quarter around to either raise or lower the horse-power frame, and the wheels are in the same position on the ground whether the frame is in the upper or lower position.

It will be seen that, by withdrawing the king-bolt F and pins *g*, the axles can be turned into the position shown in Fig. 2.

The object of this lowering of the frame is twofold; first, in order to bring the tumbling-shaft B below the plane of the axles; second, in order to lower the sweeps by which the horse-power is operated to the proper position for the attachment of the double-trees. The purpose of raising the frame on the axles (which is done when moving it from place to place) is to raise the tumbling-shaft and other parts out of the way of obstructions.

I claim—

1. The combination of the axle D, hinged to the bolster C by hinge E, so that the frame of the horse-power will be raised or lowered by a quarter turn of the axle, as and for the purpose set forth.

2. The combination of the bolster C and bearing-block *c*, with the axle D and hinge E, having a boss, *e'*, through which passes the king-bolt F, as and for the purpose set forth.

CYRUS ROBERTS.

Witnesses:

JAS. H. LYON,
CHAS. A. LYON.