J. M. Rand,

Horse Power.

No. 99,591. Patented Feb. 8, 1870.

Fig. 1.

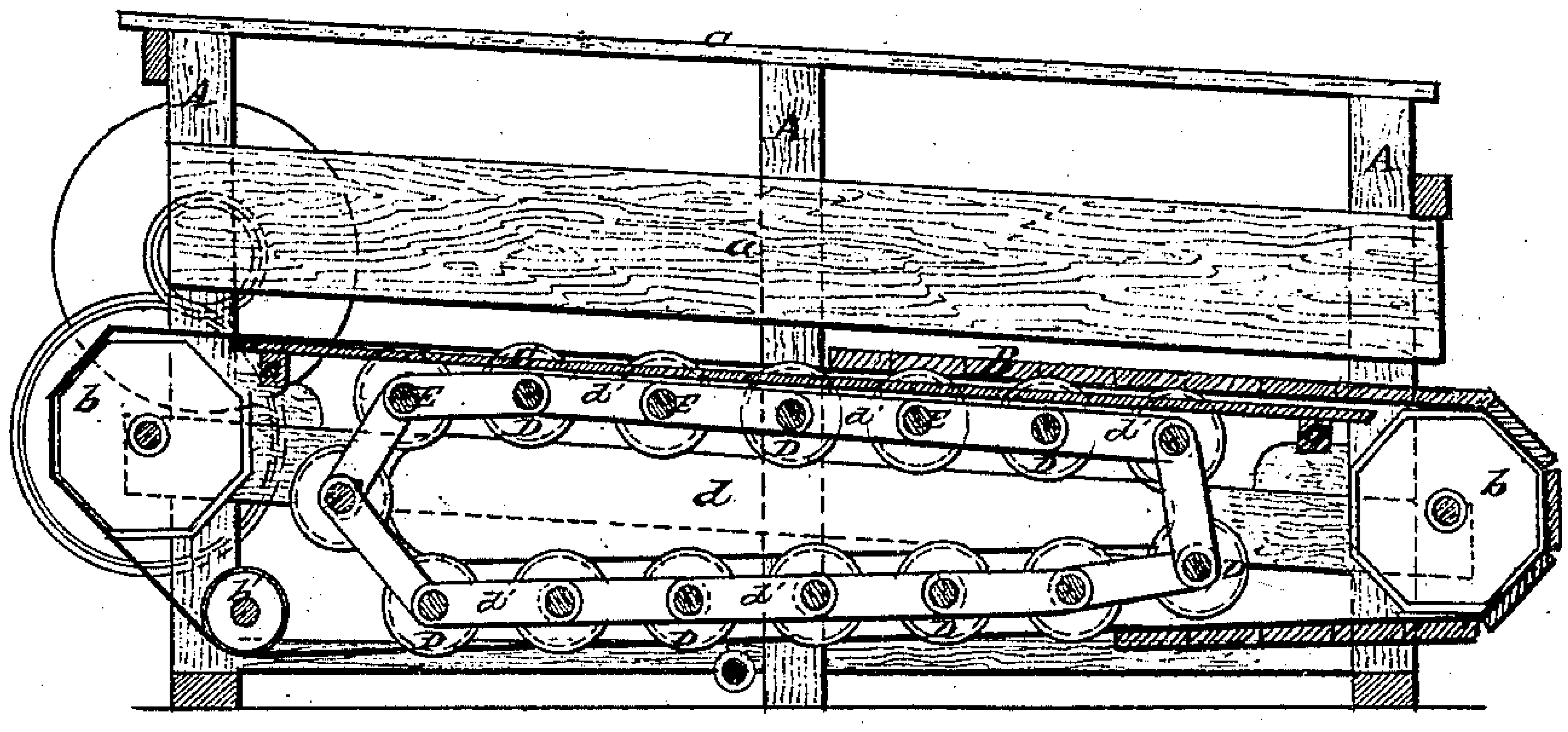
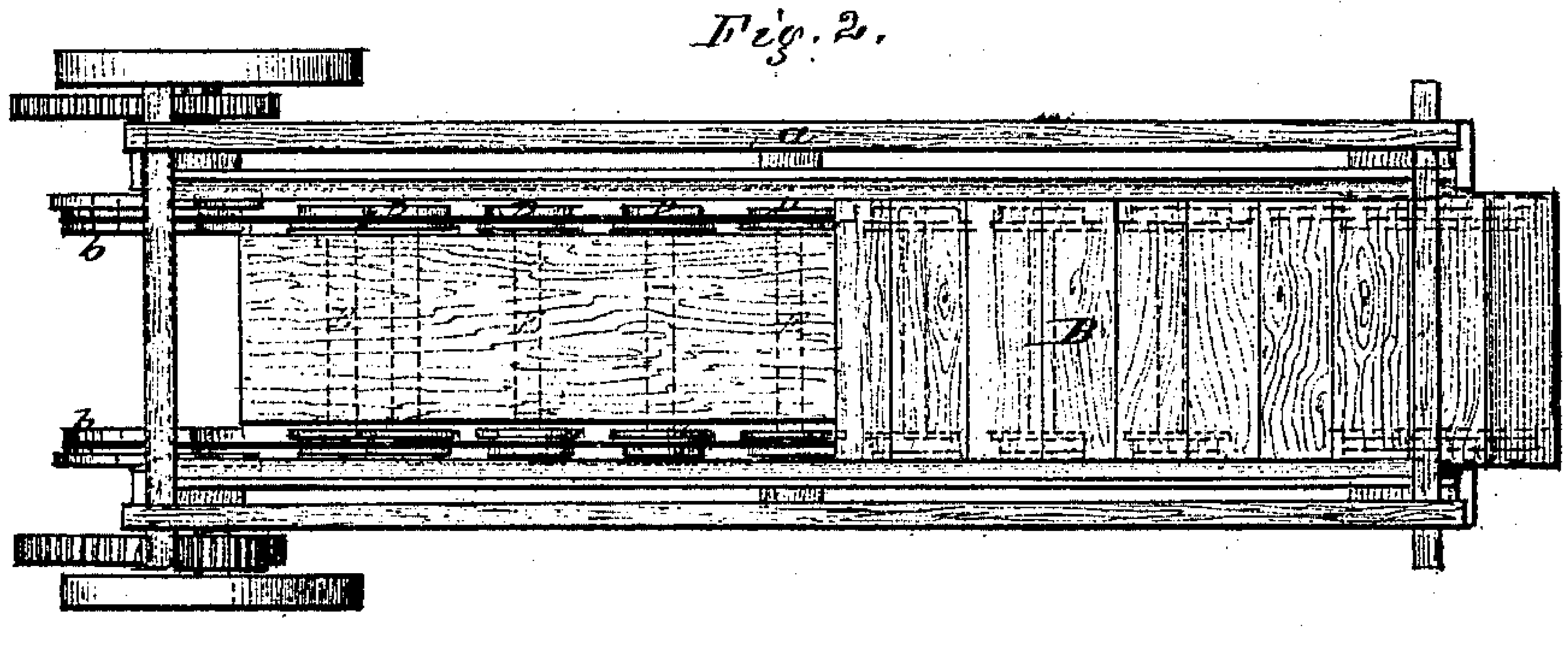


Fig. 2.



Witnesses.
M. S. G. Wilde.
Austin G. Howarth.

James M. Rand-
by his Atty,
Carroll D. Wright-

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES M. RAND, OF CHICAGO, ILLINOIS.

IMPROVED HORSE-POWER.

Specification forming part of Letters Patent No. **99,591**, dated February 8, 1870.

To all whom it may concern:

Be it known that I, JAMES M. RAND, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Horse-Powers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings and letters of reference marked thereon, in which—

Figure 1 is a longitudinal vertical central section of my invention with a part of the revolving platform removed, and Fig. 2 a plan view of the same.

This invention relates to that class of horse-powers which employ an inclined endless platform revolving around octagonal or other shaped drums, and operated by the weight of the draft-animals; and it consists of a stationary platform placed beneath the revolving platform in such manner as to prevent injury to the animals in case of the breakage of the same.

It also consists of a series of car-wheel-shaped rollers attached to an endless series of bearings and revolving around a tapering guide or track, which rollers support the endless platform.

The details of construction and method of operation will be more fully explained hereinafter.

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

In the drawings, A A A represent vertical standards, which, with the longitudinal pieces *a a*, constitute the frame-work of the machine, in which is located the endless platform B, which is of the usual construction, and revolves around the octagonal drums *b b* and wheel *b'*, the sections of the platform being of the same width as the faces of the drums *b*.

C represents a stationary inclined platform, which is located immediately beneath that part of the platform B on which the draft-animals are stationed, and is supported by the transverse timbers *c c*.

The platform B is supported above the platform C by the flanged rollers D, which run on the tapering guides or tracks *d*, whose edges are parallel with the platform B. The rollers D are connected by the axles E, which pass through the endless series of coupling-links *d' d'*, &c.

The operation of my invention will be readily understood. The platform B is supported between the drums *b* by the rollers D, which revolve with it, and are kept in place on the guides *d* by their flanges, as shown. In case one of the tranverse planks of the platform B should break, the platform C would prevent the animal from falling through, and thereby becoming injured.

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

The combination of the stationary platform C, apron B, guide *d*, and belt of rollers *d'* D, all constructed and arranged to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES M. RAND.

Witnesses:

CARROLL D. WRIGHT,

AUSTIN S. HOWARTH.