

J. J. KOENIG & H. PENOYER.

HORSE-POWER.

No. 173,475.

Patented Feb. 15, 1876.

Fig. 1.

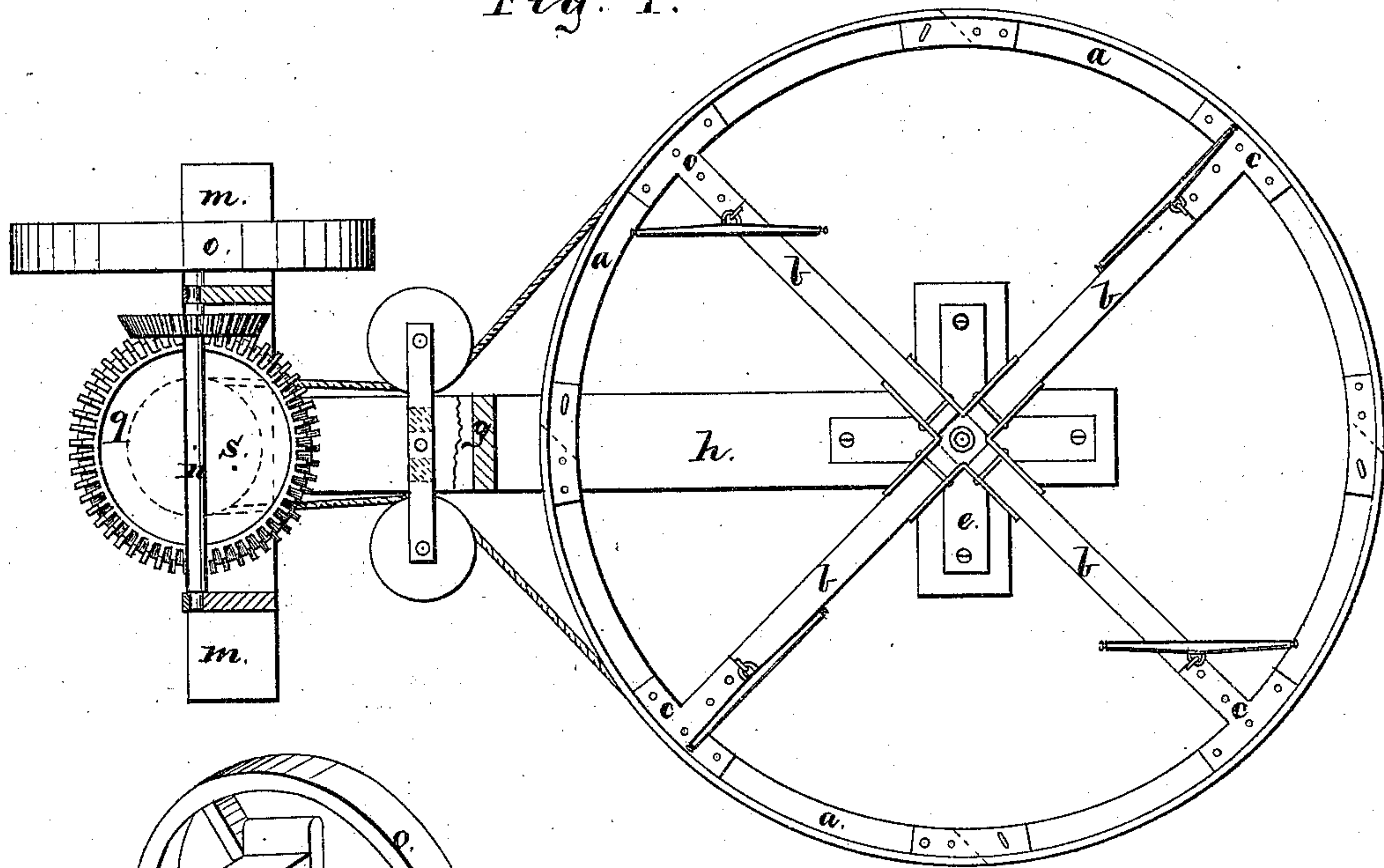


Fig. 2.

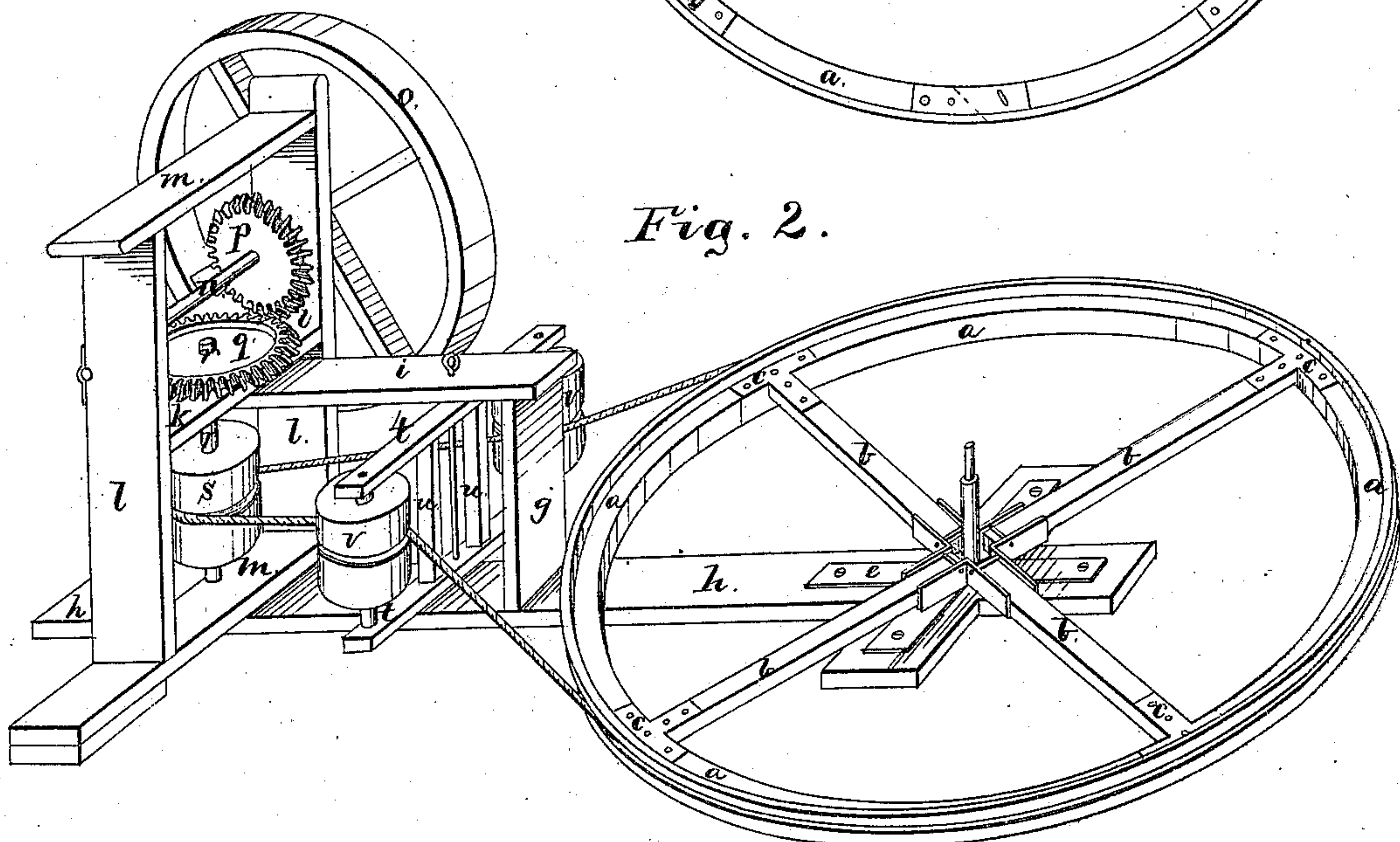
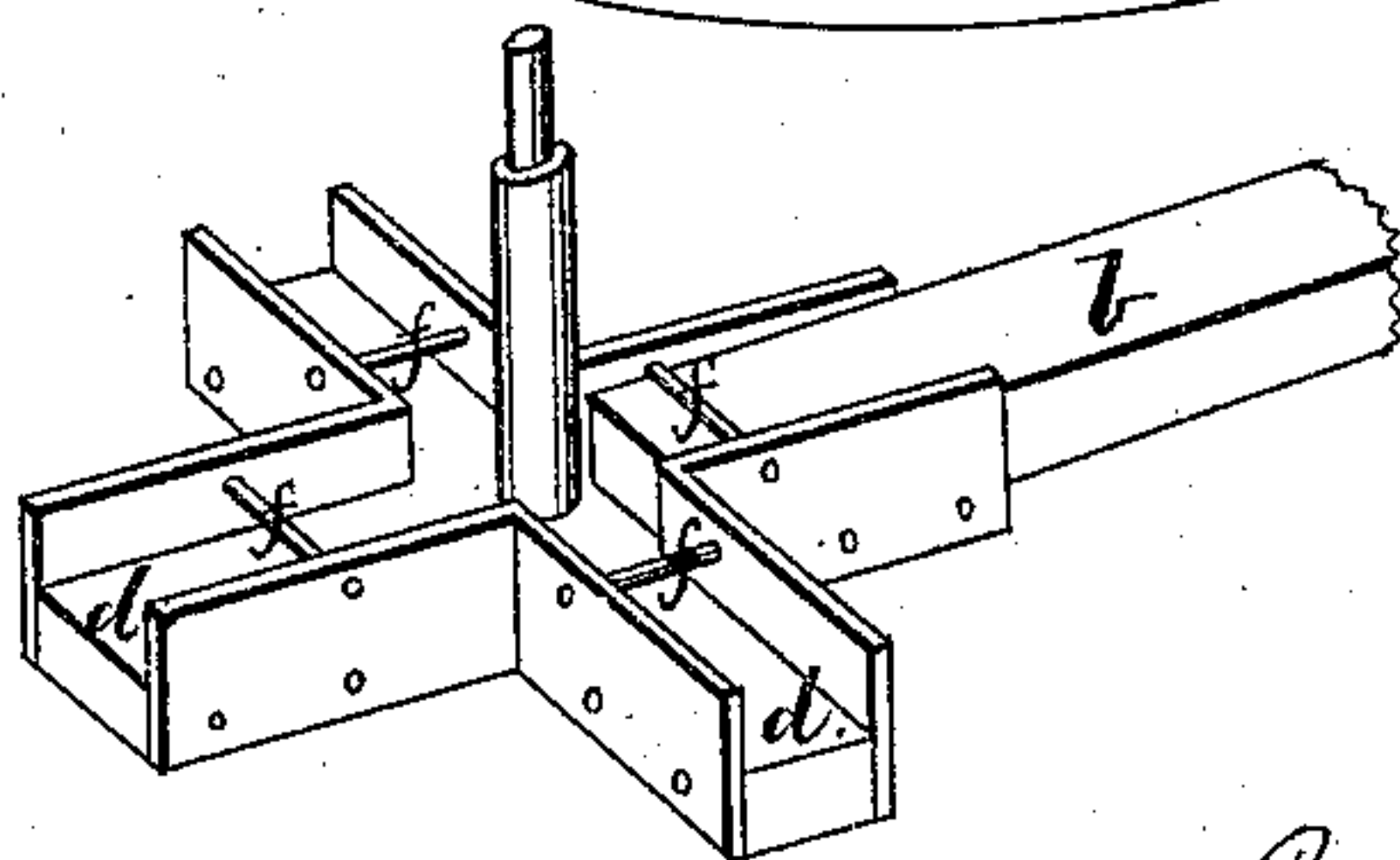


Fig. 3.



Witnesses

Wm S Hammers  
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Inventors,

Julius J Koenig  
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# UNITED STATES PATENT OFFICE.

JULIAN J. KOENIG AND HIRAM PENOYER, OF ANNA, ILLINOIS.

## IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. 173,475, dated February 15, 1876; application filed June 7, 1875.

*To all whom it may concern:*

Be it known that we, JULIAN J. KOENIG and HIRAM PENOYER, of Anna, in the county of Union and State of Illinois, have invented a new and Improved Horse-Power; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and letters of reference marked thereon.

Figure 1 is the plan or top view. Fig. 2 is the perspective view. Fig. 3 is a part or support of the driving-wheel, as shown by the drawings.

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

The nature of our invention consists of one main driving-wheel of any desirable size, according to the amount of power wanted, from one-horse power to four or more, as the case may be. The horses are to work immediately on the inside of the rim of the wheel. The rim is made of wood, and divided into four or eight sections, as the case may be, marked *a a a*; if stationary, four sections, or eight, if made portable, the same made to run with a rope or belt. If stationary, the rim is made in four sections, and each section is made fast to the outer end of the arms, marked *b b b b*, to which the horses are attached by means of a plate of wrought-iron in the form of a T, marked *c c c c*, bolted solid to the ends of the arms and rim. The ends of the sections of the rim are cut sloping, with a bolt or screw run through them to keep them from working up and down, and a narrow plate of wrought-iron of suitable length and width, one end of which is made fast to the end of one section of rim by means of bolts, and with a loose bolt fastened to the end of the other section to hold the rim together. The arms to which the sections of the rim are attached are so constructed that they can be removed from the support upon which the wheel rests by raising them up a little and drawing the lower end out from under a bolt through the iron plates that are made fast to the cross-timbers, marked *d d d d*, that form the support upon which the wheel rests. The support is made of two pieces of timber of suitable length and thickness, and of the same width of the arms

*b b b b*, the same forming a cross, marked *d d d d*, as shown by Fig. 3 on the drawings, and the same halved together, with a hole through the middle to admit of the pivot or spindle upon which the wheel turns, which is made fast to the cross on the end of the bed-piece, marked *e*, upon which the wheel turns. There are to be four plates of wrought-iron of suitable length and width, which are to be bent square in the middle, so as to fit on the inside of the cross-timbers forming the support, and bolted fast to the same, and the plates, when bolted to the timbers, to be wide enough to admit of the ends of the arms of the wheel to pass under the bolts through the plates of iron that are made fast on each side of the timbers, so that the lower side of the arms will rest on the timbers *d d d d*, and the upper side near the ends of the arms will rest against the bolts *f f f f*. The seat and platform for the driver rest upon the support, with a hole through the middle of the platform to admit of the spindle upon which the wheel turns, which serves to hold the seat and platform in their proper place. Immediately in front of the platform is an upright post, *g*, framed into the bed or ground piece *h*, and also into another piece at the top, *i*, which extends forward and is made fast to another piece, *k*, the ends of which are framed into two upright posts, *l l*, that are framed into a cross-piece, *m*, at the bottom, and one, *m*, at the top. The middle of the bottom piece is made fast to the bed-piece *h* near the end of the same, which rests upon the ground and holds the machinery in its place, and serves to steady the same. Near the top of these two upright posts a shaft, *n*, is confined with brackets, made fast to the posts with screws, upon which the shaft turns. The right-hand end of the shaft extends out far enough from the right-hand post to fasten the drum-wheel *o*, to which the belt of other machinery is attached, and on the inside of the post a small cast wheel, *p*, is made fast to the shaft *n*. The same gears into another cast wheel, *q*, that is made fast to the top of an upright shaft, *r*, upon the lower end of which a small pulley, *s*, is made fast, to which the rope or belt from the driving-wheel runs. The lower end of the shaft runs in a metallic box that is fastened into the cross-



piece *m*, where it is connected to the bed-piece, and the upper end against the front side of the cross-piece *k*, and is held to its place by a bracket made fast to the cross-piece *k* by means of bolts or screws. Between the post *q* and the pulley *s* is a self-adjusting brake, to tighten the rope or belt whenever it is necessary, which is held to its place by means of a rod that runs down through the top piece *i*, down into the bed-piece *h*, and upon which the brake turns. The brake is made by taking two pieces of timber, *t t*, of suitable size and length, with a small hole in the middle of each for the rod to pass through, upon which the brake turns, with two upright posts, *u u*, of suitable length, framed into the two pieces of timber, one on each side of the hole in the timbers, to hold the same substantially in their place, and to allow the shafts of two pulleys, *v v*, to work in the ends of the same, as shown in the drawings. The rope or belt from the driving-wheel to the pulley *s* passes between the pulleys *v v* and the two posts *u u*, and whenever it becomes necessary to apply more force upon the pulley *s*, the brake turns,

and the two pulleys *v v* press with a leverage-power upon the rope or belt, and prevent the same from slipping. Also, the driving-wheel, together with the machinery, is so arranged that it can be taken apart and put together again in a few moments, and being made mostly of wood, makes it very cheap, and but little trouble to transport it from place to place at any time desired. And the arms of the driving-wheel being made sloping toward the center of the wheel, makes it but little trouble to lead the horses into the wheel to their proper places by removing only one section of the wheel.

What we claim as our invention, and desire to secure by Letters Patent, is—

The horse-power consisting of the wheel, made of detachable sections, the belt, guide-pulleys, and automatic brake, substantially as and for the purpose set forth.

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Witnesses:

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