E. T. Bussell,

Motor.

No. 19,183. Patented Jan. 26, 1858.

Fig. 3.

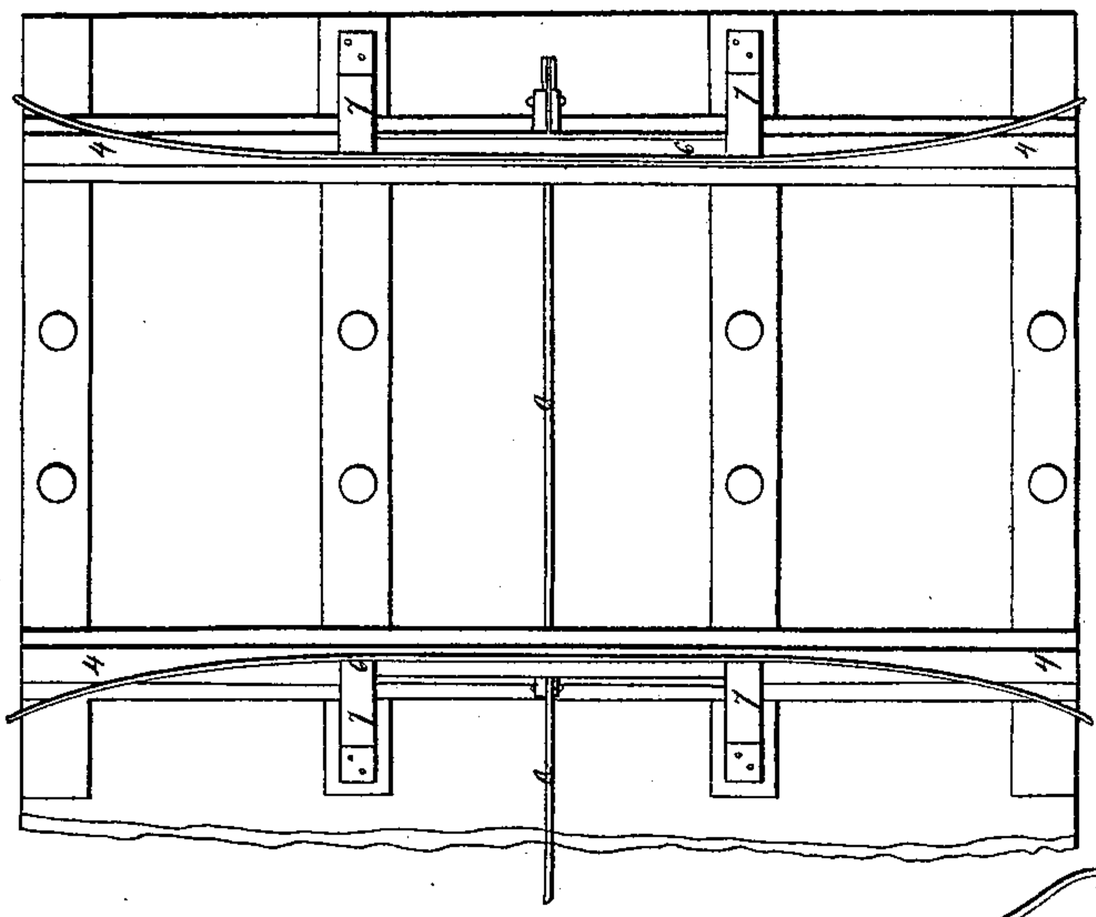

Fig. 2.

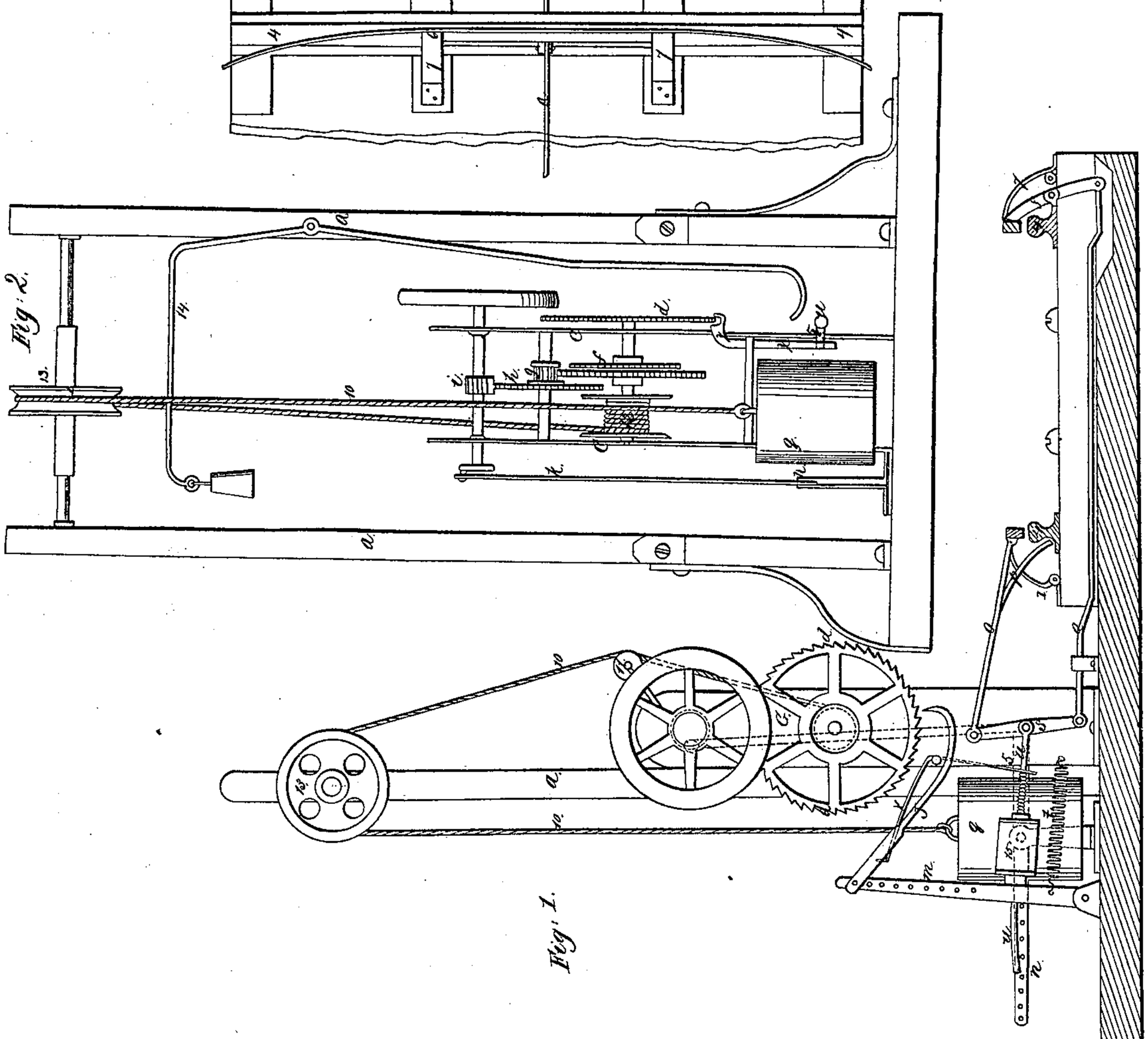

Fig. 1.

UNITED STATES PATENT OFFICE.

ERASTUS T. BUSSELL, OF SHELBYVILLE, INDIANA.

MACHINERY FOR OBTAINING AND PRESERVING POWER FROM TRAINS WHILE PASSING RAILWAY-STATIONS.

Specification of Letters Patent No. 19,183, dated January 26, 1858.

To all whom it may concern:

Be it known that I, ERASTUS T. BUSSELL, of Shelbyville, in the county of Shelby and State of Indiana, have invented a new and useful machine for collecting or catching power from trains of railway-cars in their flight, and which I denominate a "Railway Power-Trap," which said power can either be used direct or can be deposited in a large weight, subject to draft, as the demand may require, for the propulsion of any kind of light machinery. In other words, my railway power-trap is a simple device—two compound curved planes placed alongside a railroad, which said planes are to be tripped by the wheels of each car-truck or else by a perpendicular friction-roller projecting in a bracket from each truck, and so operate light machinery direct or wind up a weight, the running down of which will run said machinery, such as pumps, &c.

The following is a full and exact description of the construction and operation of said invention;—reference being had to the accompanying drawings (and model), which I desire to make a part of my specification.

In the references to the drawings, like figures and like letters are intended to represent like parts.

Figure 1— is a perpendicular sectional side view; Fig. 2— is a perpendicular rear view; and Fig. 3— is a top view of so much of the machinery as belongs to the track, or railway.

To enable others, who are skilled in the construction of rail road machinery, to build my machine and put it into successful operation, I shall proceed to describe the same:—

4, 4, 4, 4, are T rails placed upon cross ties.

6,6 are curved bars of iron or steel, with projections 7, 7, the outer or lower ends of which are hinged to the cross ties on the outside of the rails.

Lever 8, and rods *q* and *o* are the channels through which motion is communicated from the curved bars or planes 6, 6, to the compensating lever *s*, when said planes are thrown outward by the passing through, of a railway car. To lever *s*, is attached the rod *u*, which has a rubber spring 15, intervening between levers *s*, and *m*. To the top of lever *m*, is attached the ratchet hook J, which hangs loose from ratchet wheel *d*,: spring *x* is so adjusted to this ratchet hook at one end, and the other end connected with a small projection from the rod *u*, that when a blow is struck upon the inner face of either or both the curved planes 6, 6,—while the india rubber spring 15, is contracting, and before any impression is made upon the upright lever *m*,—this spring *x*, at once throws up the ratchet hook, and so has it engaged with the ratchet wheel before any traction is made upon said hook.

9, is a weight suspended by cord 10, passing over pulleys 11, and 13, and wound upon shaft 12, which is actuated by ratchet wheel *d*;—*k*, is a pitman, the lower end attached to lever or pump-handle *n*, while the upper end is attached to a crank where the power escapes from weight 9, through the cogged gearing—*i*, *h*, *g* and *f*. When the weight is wound high enough to lift the short arm of crooked lever 14, slightly, it throws the foot of said lever above the ratchet hook J, so that, until said weight runs down a little the said hook cannot be made to engage with ratchet wheel *d*;—*t*, is a spiral spring, one end attached to the frame C, and the other to lever *m*, so that when pressure is removed from curved planes 6, 6, its function is to restore all the parts to their proper places, and this reaction is restrained within proper limits by the stop P, on the lower side of rod *o*,—one end of it strikes against the rail nearest the machinery.

a, *a*, is a wooden frame sustaining the pulley for elevating the weight.

I wish it distinctly understood that in this device I am not confined to any one kind of escapement, nor am I confined to the wheels of railway cars, to generate my power; but, contemplate the use of perpendicular friction rollers, projecting either from the trucks or from the lower edge of the car beds, and in either case the position of the curved planes will be governed accordingly. I also contemplate pumping water by this machine without the weight, by attaching a square lever, or its equivalent device, to lever *m*, one end of which will receive the blow, while the other end will actuate the pump piston.

For sawing wood, or, for running any other kind of light machinery, a heavy weight will be necessary,—which can be

made of any desirable dimensions and weight by filling a large strong box with rock and clay, and suspending it by a strong chain.

The mode of operation is simple—each car truck acting upon the planes 6, 6, the same as a wedge—driving them apart, and so winding a weight or otherwise performing a periodical though useful function.

The great practicability of this machine is self evident, as it is well known that when a train of cars is in its flight, it can give off momentarily an immense power without any detriment to its running. There is an inherent power in momentum, and by adjusting the machinery so as to lighten the concussion, through the intervention of springs and inclined planes, said power may be collected to an almost unlimited extent.

As I am well aware that there is no novelty in running machinery by weight, no claim is laid on that score, but,

What I do claim, and desire to secure by Letters Patent is,

The catching or saving of power from a train of cars in its flight, through the curved planes 6, 6, and the appended mechanism, or any other equivalent device, substantially as herein set forth.

E. T. BUSSELL.

Witnesses:

M. BENSON,

H. H. HUNTLEY.