

No. 705,889.

Patented July 29, 1902.

I. WROBEL.
ROAD BREAKING MACHINE.

(Application filed Nov. 18, 1901.)

(No Model.)

Fig. 1.

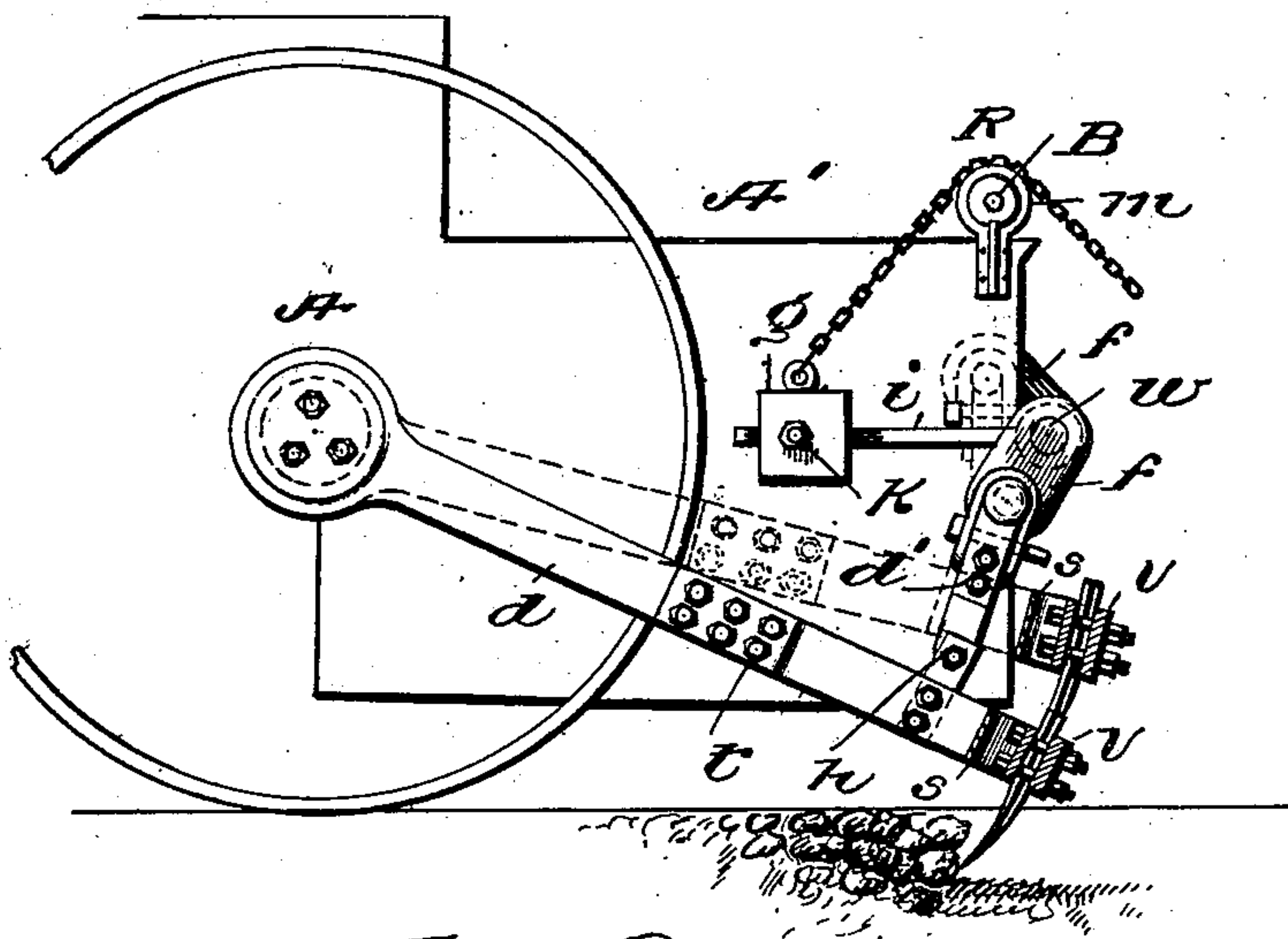
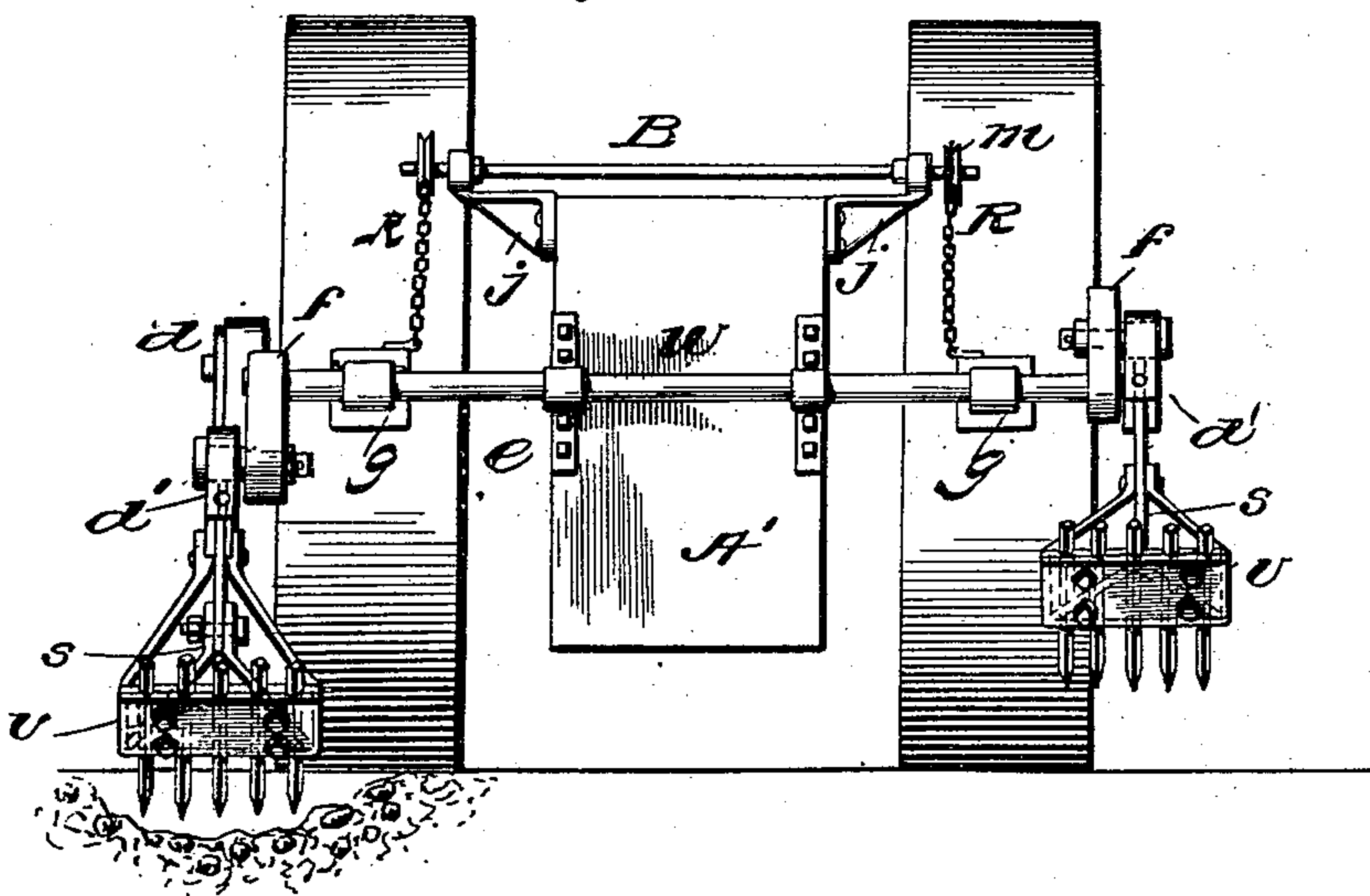


Fig. 2.



Witnesses

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IGNATZ WROBEL, OF GROSS DÜNGEN, GERMANY.

ROAD-BREAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 705,889, dated July 29, 1902.

Application filed November 18, 1901. Serial No. 82,755. (No model.)

To all whom it may concern:

Be it known that I, IGNATZ WROBEL, a subject of the Emperor of Germany, residing at Gross Dungen, near Hildesheim, Germany, have invented a new and useful Road-Breaking Machine, of which the following is a specification.

This invention has relation to improvements in devices for breaking up the bed of roads; and it consists in the novel construction, combination, and arrangement of parts of which it is composed, all as will be hereinafter fully explained, and more particularly pointed out in the appended claims.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a side view of my improved road-breaking machine, and Fig. 2 is a rear view of the same.

Referring by letter to the accompanying drawings, A' designates the rear portion of an ordinary steam-roller used on roads and to which my improvement is attached. To the axle of this road-roller is pivoted, as at A, the forward end of a bar *d*, forming a part of a triangular frame *s*, which latter is bolted to said bar, as at *t*. In the rear of the transverse bar of the triangular frame aforesaid is arranged a series of toothed curved picks in the form of an ordinary rake, and the same are held firmly to said frame by a clamping-plate *v*, which is bolted to the frame, as clearly shown in Fig. 1 of the drawings. The rear end of the portable roller is provided with journal-bearings *e e*, in which is arranged a transverse rock-shaft *w*, on the end of which is secured a crank or arm *f*, to the outer end of which is pivoted a link *d'*, the lower end of which is in turn pivoted to a vertical bar *h*, that is bolted to the triangular frame. Upon this transverse shaft *w* is keyed a horizontal arm *i*, upon the outer end of which is arranged a weight *g*, having a set-screw *k*, by which said weight is secured to the arm after being adjusted, as will be further hereinafter described.

B designates a transverse rod, which has its bearings in brackets *j j*, secured to the road-roller, and to the outer end of which is mounted a pulley *m*, over which passes a chain R,

that is connected to the adjustable weight, while the opposite end of said chain may be in any convenient place or position where it may be grasped by the operator.

In the foregoing description I have mentioned the various parts of my device constituting but one operating side of the road-roller and did not deem it necessary to describe the opposite operating parts, which are exactly like the parts described. Hence we have in duplicate the triangular frame, crank, links, weights, and pulleys, as well as the toothed bars or picks.

It will be observed from the above description, when taken in connection with the accompanying drawings, that the adjustable pick-frame is pivoted to the axle of the roller, on each side thereof, and in order to tear up a road-bed the triangular frame on one side of the roller is lowered, and as the roller moves forward the points of the picks are driven into the ground and held down to their work by the weights *k*, and should a serious obstruction encounter said points the weight would yield, and through the medium of the links and cranks the frame, with its picks, would rise and pass over any such obstruction, when said picks would again enter the ground, and in order to throw both frames out of engagement, the operator manipulates the chain R, which raises the weights, thus turning the shaft *w*, when the cranks *f*, through the medium of the links *d'* causes the frames to leave and clear the ground, thus it will be readily seen that the required pressure upon the frame is imparted thereto from the road-roller itself, through the medium of the links and cranks, and the counterweights *g*, regulates it in order to assure a proportionate working pressure and the arrangement of the cranks permits only one of the frames to operate while the opposite frame is at rest or inoperative. The depth of the work is regulated by the chain and the weight *g*, which latter can be adjusted to or from the transverse shaft, thus decreasing or increasing the weight upon the arm *i*, as may be desired, and a device as herein described is durable, not liable to get out of order, and is simple in construction and easily operated.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a road-roller of a pair of adjustable frames, provided with
5 toothed bars a transverse shaft pivoted to the rear of the road-roller, crank-arms secured to the ends of the shaft and the links connecting the cranks to the frames, a counter adjustable weight secured to the shaft and
10 chains connected to the weights and passing over pulleys mounted on the shaft B, arranged in the brackets secured to the rear of the roller, all substantially as described.

2. In a device of the character described,
15 the combination with the roller, of twin frames pivoted at their forward ends directly to the axle of said roller and arranged on each side thereof, the toothed bars interposed between said frame and the clamping-plate *v* and held
20 in place by the bolts, the cranks secured to the shaft *w* and the links, the lower end thereof pivoted to the frame and the upper end pivoted to said crank, the weights *g* arm *i* and

chains *R*, passing over the pulleys, all substantially as described. 25

3. The herein-described device for breaking up roads, comprising triangular frames, the forward-extended portions being pivoted to the axle of a road-roller said frames provided with the toothed bars, clamping-plates 30 bolted to the frames between which and the plates said toothed bars are interposed, the crank-shaft journaled to the rear of the roller and having the arms *i i* and weights *g g*; the links *d' d'* interposed between the frames and 35 cranks, and pivoted as described the chains, pulleys and shaft therefor, the latter mounted in brackets secured to the roller, the whole adapted to operate substantially as set forth.

In testimony that I claim the foregoing as 40 my invention I have signed my name in presence of two subscribing witnesses.

IGNATZ WROBEL.

Witnesses:

LEONORE RASCH,
C. C. STEVENSON.