D. ROCKWELL & N. DOTY.

Clamps.

No. 198,754. Patented Jan. 1, 1878.

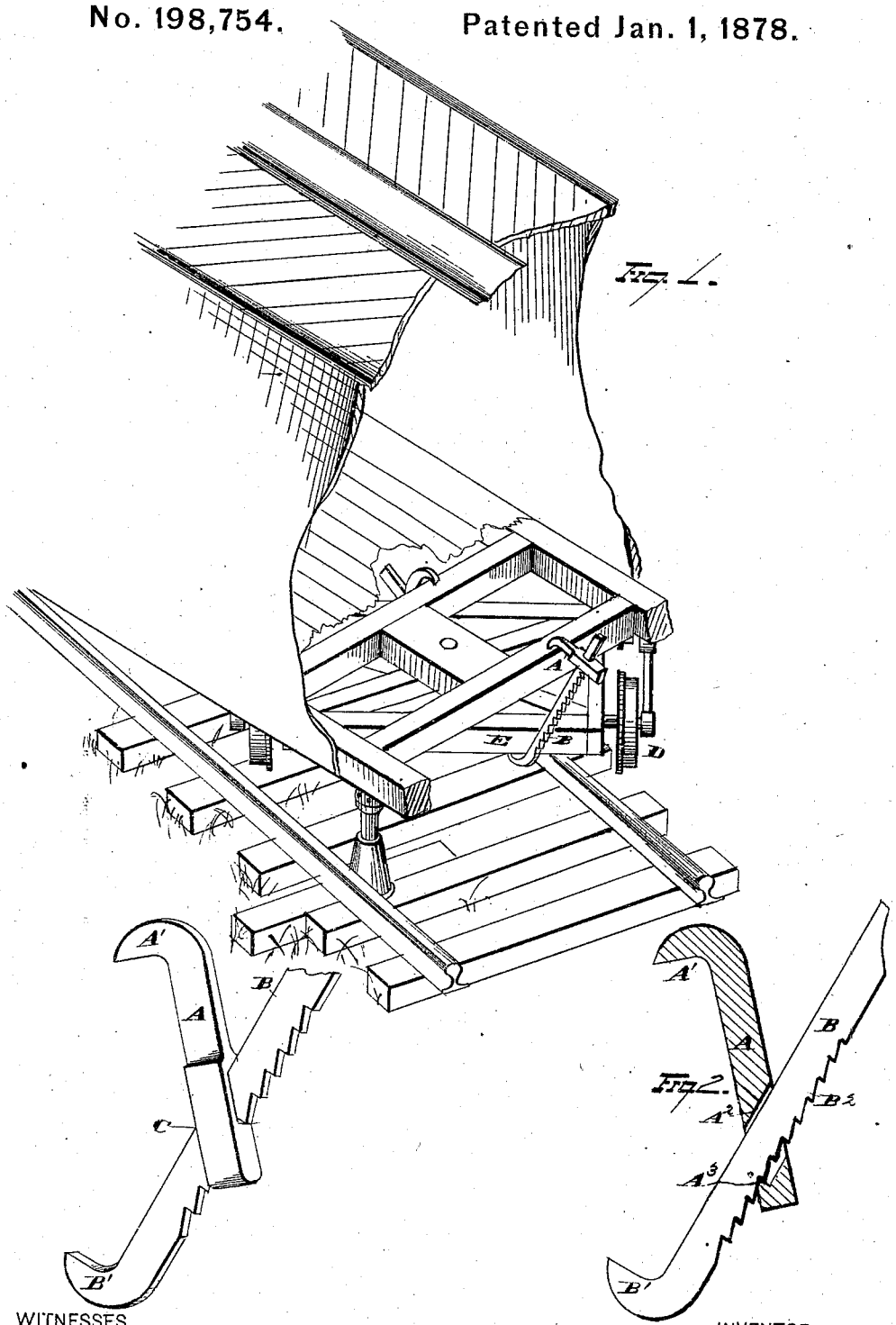

Fig. 1.

Fig. 2.

WITNESSES

Ed. S. Nottingham

Wm. Bright.

INVENTOR

Dewitt Rockwell.

and

Nathan Doty.

By Leggett and Leggett. ATTORNEYS

UNITED STATES PATENT OFFICE.

DEWITT ROCKWELL AND NATHAN DOTY, OF COLUMBUS, OHIO.

IMPROVEMENT IN CLAMPS.

Specification forming part of Letters Patent No. **198,754**, dated January 1, 1878; application filed June 20, 1877.

To all whom it may concern:

Be it known that we, DEWITT ROCKWELL and NATHAN DOTY, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Clamp for use in Replacing Cars upon the Track; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improved clamp for use in the various localities where adjustable clamps are employed, but designed more especially for use upon railroads in replacing cars upon the track that have been thrown off.

The invention consists in two hook-bars, one of them provided with a ratchet and passed through an inclined slot in the other, the perforated one being provided with a projection in the nature of a pawl, which will set into the ratchets and hold the jaws in any desired relative position, substantially as hereinafter set forth and claimed.

In the drawings, Figure 1 is a view of one of our clamps, as applied in the operation of replacing upon the rails a car which has been thrown therefrom. Fig. 2 is a longitudinal central section of one of our improved clamps.

A is a bar, provided with any suitable hook or jaw, A^1. This bar has a diagonal slot, A^2, extending through it for the passage of the ratchet-bar B. It also has a projection, A^3, which serves the purpose of a pawl to set into the ratchets on the bar B. B is the other bar, and is provided at its end with any suitable hook or jaw, B^1. The bar B is passed through the inclined slot A^2, and is provided with ratchets B^2 along one of its edges, in such position as to engage with the projection A^3 on the slotted bar A.

It will be observed that both bars being straight, or substantially straight, an angle is formed between the two at C. This is a desirable feature, inasmuch as it allows for projecting parts of the structure being clamped between the two jaws A^1 B^1. It is apparent that any strain thrown upon the jaws A^1 B^1 in opposite directions will only add to the impossibility of their sliding apart, because the greater the strain is the more firmly are they held together. Moreover, the peculiar relation of the bars at the angle C gives the clamp increased strength at that point where the strain is greatest, because the material at this point is greatly increased.

The device is very simple, and the jaws can be set to any desired distance apart by simply drawing the bar B through the bar A. So, also, it can be used either with the hook of the slotted bar uppermost, or with the hook of the sliding bar uppermost, as may be most convenient.

This device is especially applicable where one device is to be suspended from another, as, for instance, in the manner shown in the drawing, wherein the car-truck is suspended to the body of the car.

The operation of the device is very simple, and in its application as an appliance for use in the replacing of cars upon railway-tracks, is substantially as follows:

D is a car-wheel assumed to have been run off the track. E is its truck. The usual course is to jack up the car until it is free from its truck. Then jack up the truck, and put it upon the track. Then set the body of the car over upon its truck. It is a long and tedious operation, especially as the truck is generally twisted around out of position.

With our device we proceed as follows: The car and truck are first clamped together. By our clamp the bars A and B are slid upon each other until one jaw rests firmly beneath a portion of the truck and the other rests firmly against or in a portion of the car-body. The car is then jacked up, as before, but in rising the clamp lifts the truck also. As soon as the truck is free from the ground, the position of the jaws of the clamp having been properly located, the truck will swing around to its proper position, and the two are then shifted together upon the track. When in position the clamp is removed.

This device is equally well adapted in other localities where a ready clamp is required, as, for instance, by molders in fastening the cope and drag of a flask together; also, for clamping timbers together, and for various other purposes to which an ordinary clamp may be applied.

What we claim is—

1. An adjustable clamp, consisting in the combination with a bar formed with the diagonal slot and toothed projection, of a bar engaging therewith, and provided with the rack edge, each of the said bars having straight bodies and a hooked extremity, substantially as described.

2. The adjustable clamp, consisting of the straight slotted hook-bar A and the straight ratchet hook-bar B, the said bar B constructed to slide through an inclined slot in the bar A, and forming with each other an angle, C, substantially as and for the purposes described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

DEWITT ROCKWELL.
NATHAN DOTY.

Witnesses:
FRANCIS TOUMEY,
W. E. DONNELLY.