(No Model.)

R. P. BRYANT & J. H. GILLELAND.

RAILWAY TAMPER.

No. 318,163. Patented May 19, 1885.

Fig. 1

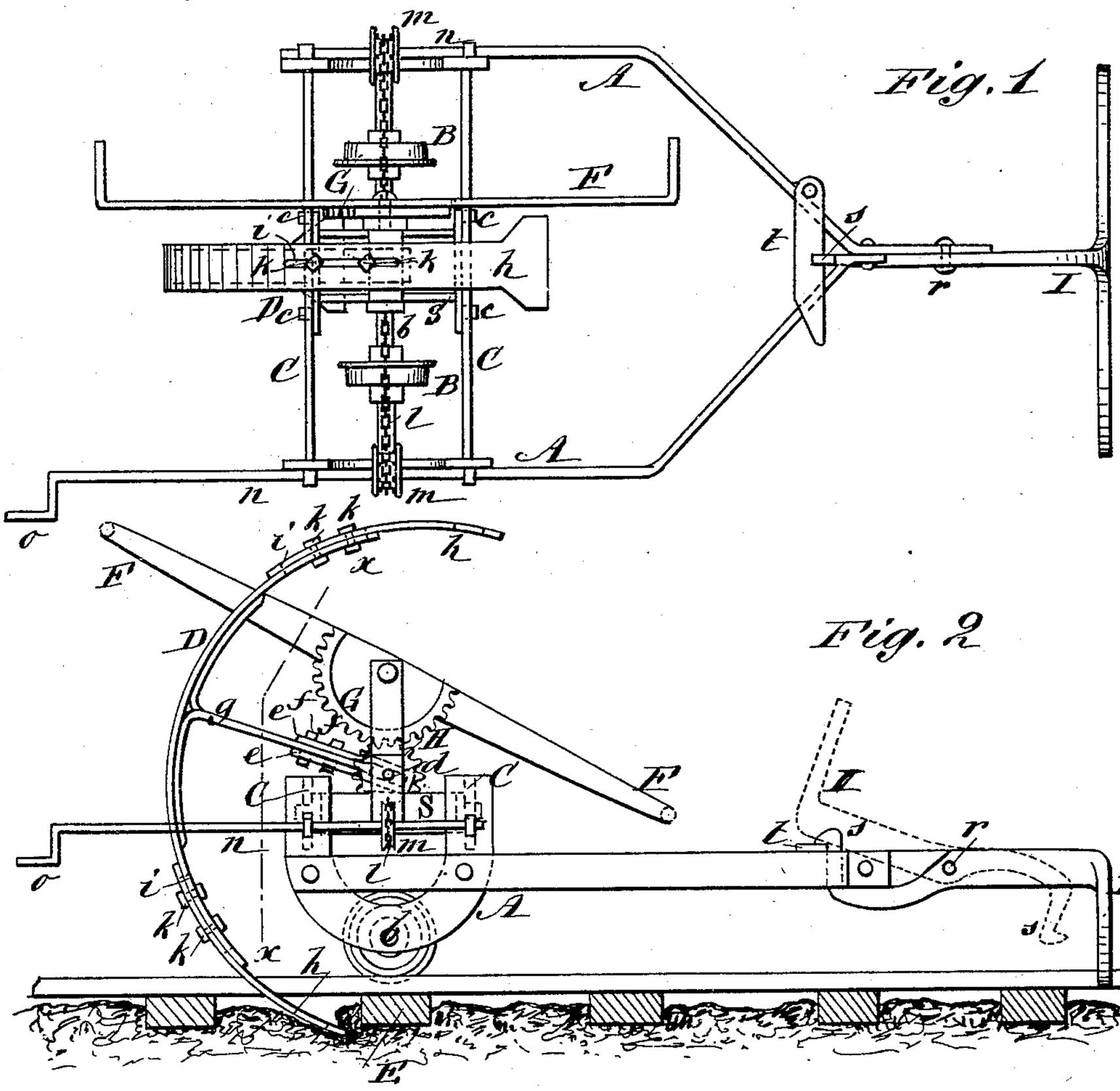

Fig. 2

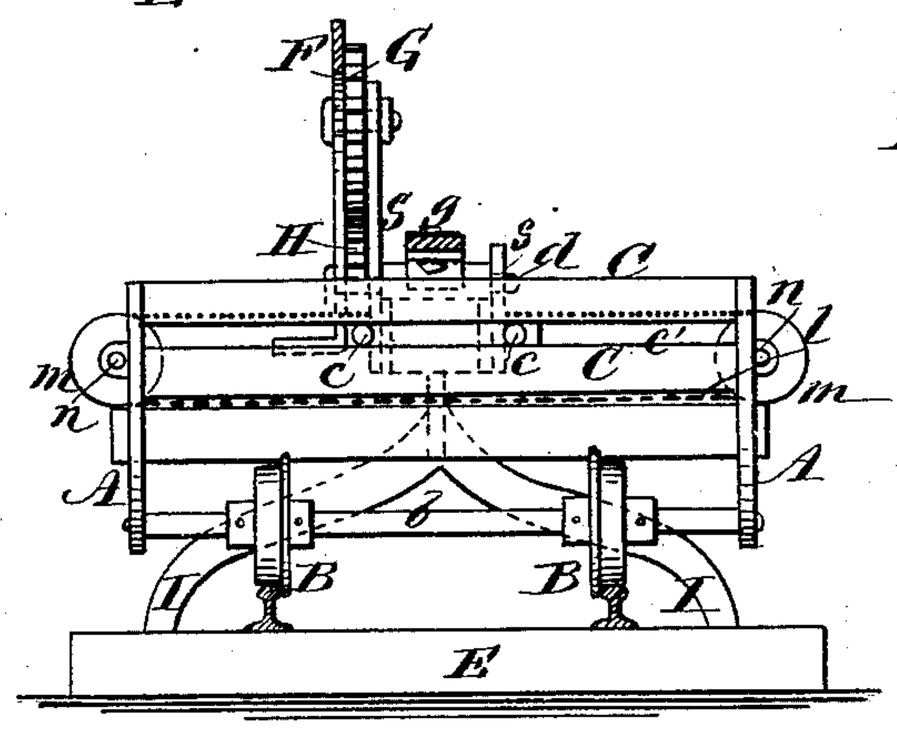

Fig. 3

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RAILWAY-TAMPER.

SPECIFICATION forming part of Letters Patent No. 318,163, dated May 19, 1885.

Application filed February 19, 1885. (No model.)

To all whom it may concern:

Be it known that we, R. P. BRYANT and J. H. GILLELAND, both of Jacksonville, in the county of Calhoun and State of Alabama, have invented a new an Improved Railroad-Tamper, of which the following is a full, clear, and exact description.

Our invention has for its object the production of a machine or apparatus capable of being run or moved along the rails of a line of railroad for tamping or packing the earth under railroad-ties; and it consists in an apparatus of special construction for the purpose, including certain peculiar constructions and combinations of its parts, substantially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a plan view of a railroad-tamper embodying our invention as it would appear when at work; Fig. 2, a side view of the same as when at work on a line of railroad, also showing by dotted lines the forward or anchoring portion of the apparatus as thrown up and back to provide for moving the tamper over the rails; and Fig. 3, a vertical transverse section on the irregular line *x x* in Fig. 2.

A is the main frame of the apparatus, arranged to rest on or be supported by an axle, *b*, which is fitted with two wheels, B B, designed to run upon the two rails of a track, and that are preferably adjustable by means of set-screws to different widths apart on the axle to suit broad and narrow or different railroad-gages. The rear portions of the sides of said frame are connected by parallel cross-slideways C C for a tamping-tool-carrying frame, S, to move in or along—as, for instance, by projections *c* on the frame C, arranged to project within or through longitudinal slots *c'* in the slideways; or the frame S may be otherwise suitably guided in its adjustments in reverse directions across the apparatus.

Upon the frame S or uprights attached thereto is mounted a shaft, *d*, parallel with the main axle *b*, and mounted on or secured to said shaft or axle *d* is the tamping-tool or tamper proper, D, which should be made capable of being set in or out from the shaft *d*—as, for instance, by a strap, *e*, and bolts *f*, or otherwise, to give the proper stroke to the tamper D. The general configuration of the tamper or tamping-tool D is preferably that of a half or part circle, so as to leave two exposed ends on opposite sides of a radial line extending from the shaft *d* in the same plane with the arm *g*, by which the tamper is connected with the shaft. Each opposite end portion of said tamping-tool D is fitted with a tamping hoe-like or other blade, *h*, adjustable, as by a slot, *i*, and bolt *k*, or otherwise, along or over the body of the tool to adapt the tamper to its work and to provide for removal of the blades. The tamping-tool D is oscillated or rocked to and fro to pack the earth by means of the blades *h h*, alternately under and from opposite sides of the railroad-tie E to be tamped. This is or may be done by means of a beam or a double cross-handle, F, attached to a toothed gear or partial gear, G, having its bearing on an upright of the cross-sliding frame S, and arranged to engage with a gear or partial gear, H, on the shaft *d*. The frame S serves to move the tamping-tool D back and forth transversely of the apparatus, or from one end of the tie to the other, so as to act at different points throughout the length of the tie. Various means may be adopted for thus moving or sliding the frame C; but it is here shown as effected by means of a chain, *l*; or it might be a perforated band or a rope fastened at its ends to the frame S, and arranged to pass round or engage with sprocket or other wheels or pulleys *m m* on two opposite side shafts, *n n*, the one of which is provided with a crank or handle, *o*, for setting the chain or band in motion and moving the sliding frame S, as required.

The apparatus, when at work, is supported and anchored in front by a forked or other suitably shaped rest, I, pivoted at *r* to the forward end of the main frame. This rest is constructed with a back arm terminating in a hook, *s*, which, when the rest is thrown down or forward to anchor and give the necessary front support to the apparatus, engages with a pivoted slide or other catch, *t*.

When it is necessary to move the apparatus along the rails to any distance, the catch *t* is

released and the rest I thrown up or back, as shown by dotted lines in Fig. 2, so as to be out of the way and to expose a hook in front for attachment of the apparatus to a hand-car.

By means of this tamper or tamping apparatus a very large amount of work may be done at but a comparatively small expenditure of labor.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the main frame of the apparatus and its running wheels, of an oscillating tamping-tool having opposite tamping extremities, and a sliding frame or support for said tool arranged to traverse crosswise of the main frame, essentially as and for the purposes herein set forth.

2. The oscillating tamping-tool D, provided with adjustable and removable tamping-blades *h h* at its opposite outer working ends, essentially as described.

3. In combination with the cross-traversing frame S of the apparatus, and main frame A, carried by running wheels B, the tamping-tool D, having opposite outer tamping extremities and made adjustable in or out relatively to its axis of motion for varying the stroke of the tool, substantially as specified.

4. The combination of the gears G H and working beam or handle F with the oscillating tamping-tool D and its traversing frame S, essentially as described.

5. The combination, with the main frame of the apparatus and its sliding cross-frame S, of the band or chain wheels *m m* and band rope or chain *l*, substantially as specified.

6. In a railroad tamping apparatus, the combination, with the main frame of the apparatus and its running wheels B, of the pivoted forwardly and backwardly swinging front rest I, of hook shape or construction in its rear, and a catch or fastening for holding the rest in its supporting position, essentially as and for the purposes herein set forth.

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