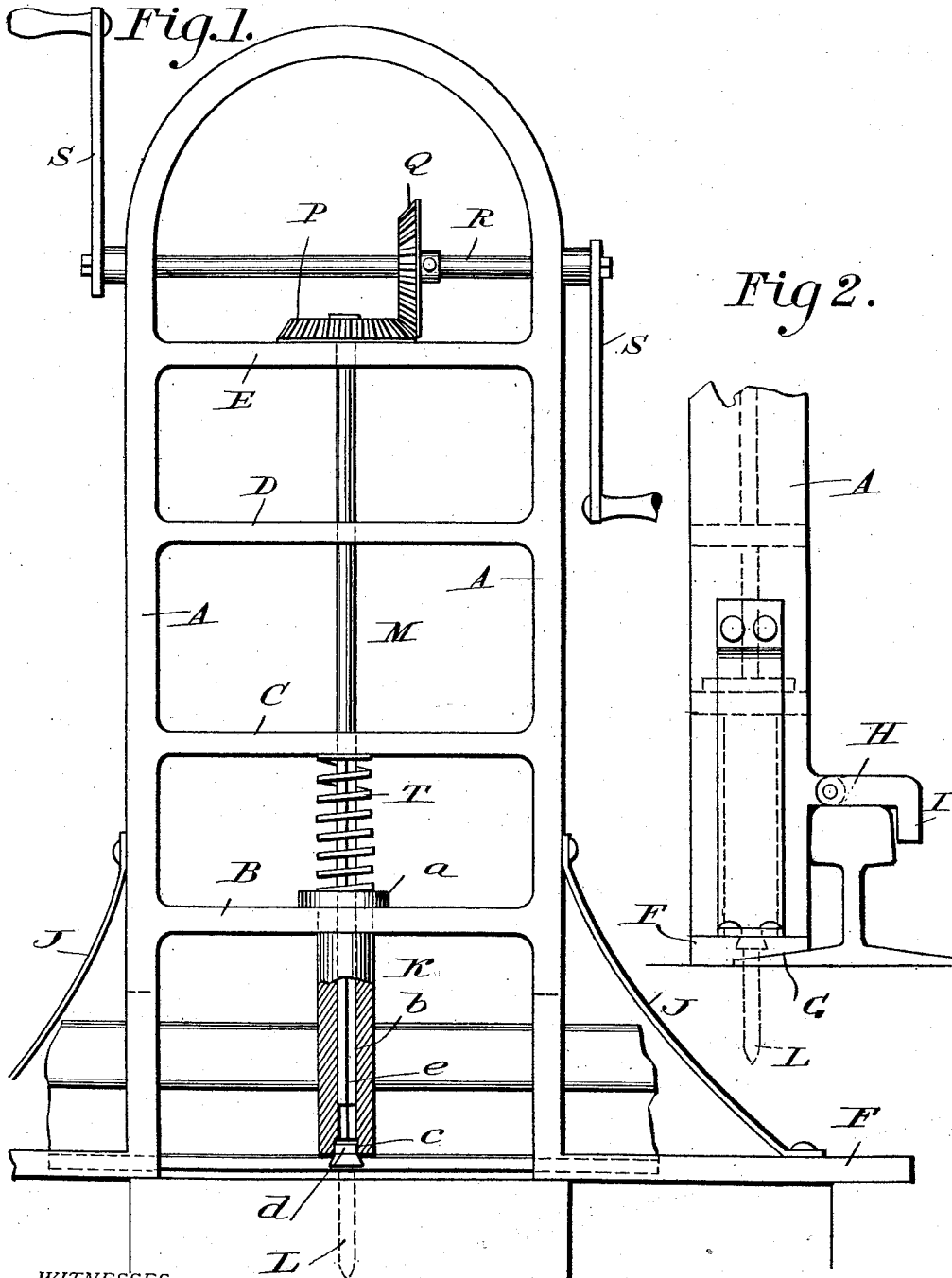


L. A. FLEMING.
SCREW DRIVING MACHINE.
APPLICATION FILED APR. 29, 1912.

1,057,230.

Patented Mar. 25, 1913.



WITNESSES

Philip E. Barnes
Edna J. Sheehy.

INVENTOR

Lucian A. Fleming.
by
James J. Healy & Co., Attorneys.

UNITED STATES PATENT OFFICE.

LUCIAN A. FLEMING, OF LA JUNTA, COLORADO.

SCREW-DRIVING MACHINE.

1,057,230.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed April 29, 1912. Serial No. 693,774.

To all whom it may concern:

Be it known that I, LUCIAN A. FLEMING, citizen of the United States, residing at La Junta, in the county of Otero and State of Colorado, have invented new and useful Improvements in Screw-Driving Machines, of which the following is a specification.

My present invention pertains to machines for driving screws and other threaded devices; and it contemplates the provision of a simple and practical machine adapted to be expeditiously and easily secured in position relative to a railway rail and to be used to advantage in the driving of threaded spikes for connecting the bases of rails to sleepers or ties.

With the foregoing in mind the invention will be fully understood from the following description and claim when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a view, partly in front elevation and partly in section of a screw spike machine constructed in accordance with my invention. Fig. 2 is a detail edge elevation showing the manner in which the frame of the machine is anchored to the heads of rails in accordance with my invention.

Similar letters of reference designate corresponding parts in both views of the drawings.

The main frame of my novel machine is, for the sake of lightness, of open work or skeleton form, and it comprises upright bars A, cross-bars B, C, D and E, edge extensions F extending in opposite directions from the lower ends of the uprights A and recessed at their under sides, as indicated by G, in Fig. 2, to snugly fit over the base of a rail and against the edge thereof, and arms H extending at right-angles to the uprights and adapted to rest on the head of a rail, and having depending terminals I adapted to rest at the opposite side of the rail head with respect to the uprights. The edge base extensions F may be and preferably are strengthened by braces J interposed between them and intermediate points on the uprights; the said braces being fixed to the edge extensions and uprights or formed integral therewith in the discretion of the manufacturer of the machine.

By virtue of the frame being constructed as described, it will be manifest that when it is arranged as shown relative to a rail or

to two rails disposed end to end, the frame will be rigidly maintained in position and held against rocking or other lateral movement away from or toward the rail and also against rocking in the direction of the length of the rail.

Journaled and movable vertically through the cross-bar of the frame is the wrench element or member K of my novel device. This member K is flanged at its upper end *a*, and is provided with an angular passage *b*—i. e., a passage of angular form in cross-section, and is also provided with a socket *c* of angular form in cross-section, adapted to snugly receive the angular projection *d* on a screw spike L, after the manner shown in Fig. 1. The angular passage *b* of the wrench member K receives the lower portion *e* of a vertical shaft M. The said portion *e* is of angular form in cross-section and of the same shape as the passage *b* in the wrench member K, and the upper portion of the shaft member M is of circular form in cross-section and journaled in the frame bars C, D and E. On its upper end said shaft M is equipped with a miter gear P, and intermeshed with the said gear P is a gear Q on the horizontal shaft R bearing oppositely disposed cranks S. Surrounding the shaft M and interposed between the flanged or enlarged end of the wrench member K and the frame bar C is a coiled spring T.

In the practical use of my novel machine, when the screw spike is placed at the point where it is to be driven and its angular portion is disposed in the socket *c* of the member K, it is simply necessary for the machine operator to manipulate the cranks S and thereby turn the shafts R and M, the latter in a direction to drive the screw. Then as the thread of the screw spike enters and engages the sleeper or tie, the spring T expands and forces the member K down on the angular portion *e* of shaft M. Then when the screw spike is driven home, it is simply necessary for the operator to slightly lift the machine, and slide the same to the proper point for the driving of the next spike, and to then repeat the operation described.

It will be gathered from the foregoing that while simple and inexpensive in construction, my novel machine may be easily moved from point to point on a rail or rails, by simply sliding it on the bases and heads of the rails also, that the movement or po-

sitioning of the machine and the driving of screw spikes can be expeditiously accomplished with but the expenditure of but little effort by a single operator. The edge
5 extensions F of the main frame of the machine contribute to the facility with which the machine can be slid along on rails subsequent to the disengagement of the member K from a driven screw spike.

10 The arms H may be and preferably, though not necessarily, are pivoted to the remainder of the main frame so as to be movable at the option of the operator.

15 Having described my invention, what I claim and desire to secure by Letters-Patent, is:

20 A screw-driving machine, comprising a main frame having uprights adapted to rest at one side of a rail head and also having edge extensions extending longitudinally in

opposite directions from the uprights in position to rest parallel to a rail head and provided in their undersides with recesses to receive the edge portion of a rail base and bear
25 against the edge and upper side of said base; arms carried by and extending laterally at right angles from the uprights in position to rest on the head of a rail and having depending terminals adapted to rest
30 at the opposite side of a rail head, with reference to the uprights of the main frame; and screw-driving means carried in the main frame.

35 In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LUCIAN A. FLEMING.

Witnesses:

JOHN B. O'NEIL,

C. W. BOMGARDNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."