No. 752,218. PATENTED FEB. 16, 1904.

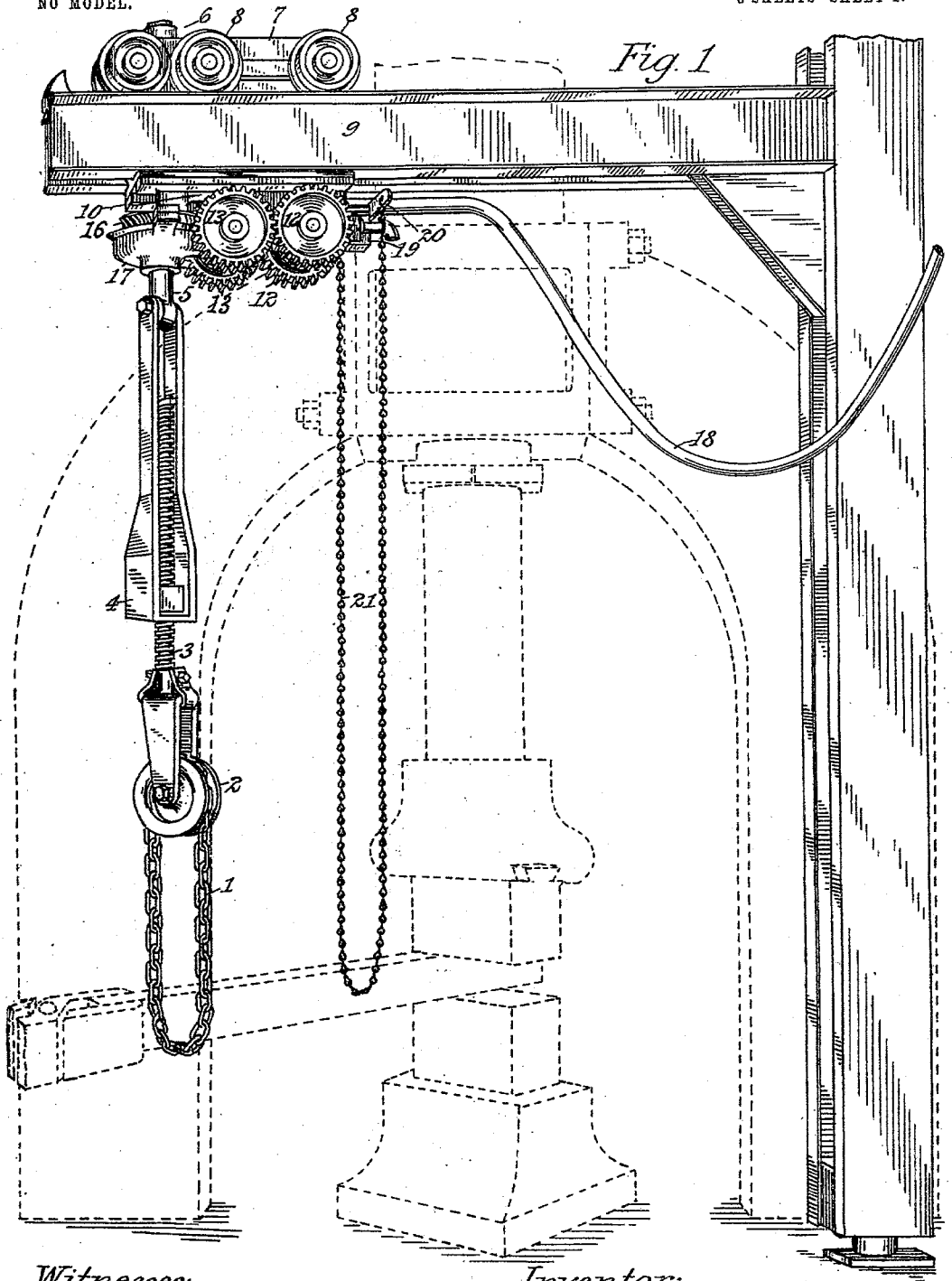
E. F. GALLOWAY, Jr.

FORGING SUSPENDER.

APPLICATION FILED NOV. 21, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1



Witnesses:
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Samuel W. Balch

Inventor:
Edwin F. Galloway, Jr.
by Thomas Ewing, Jr.,
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 752,218. PATENTED FEB. 16, 1904.

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NO MODEL. APPLICATION FILED NOV. 21, 1903. 3 SHEETS—SHEET 2.

Fig. 2

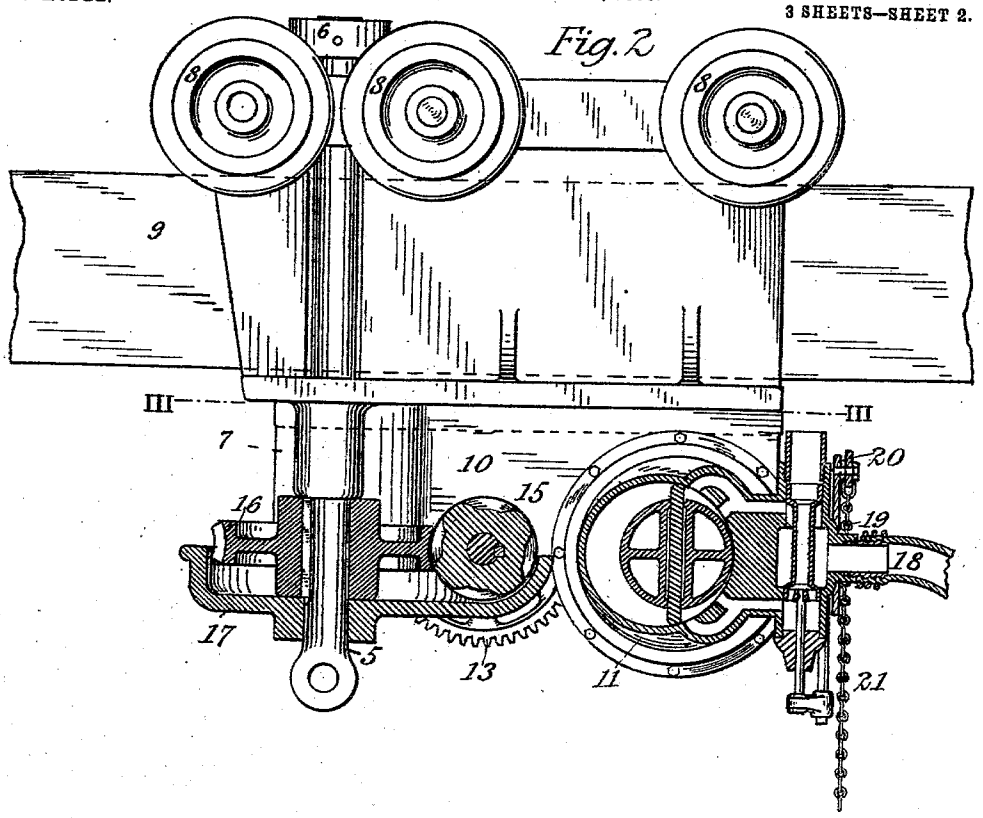
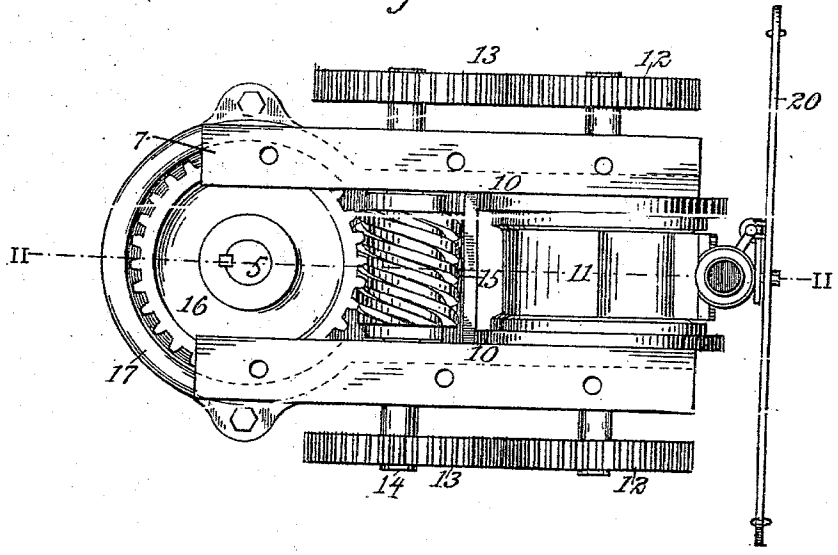


Fig. 3



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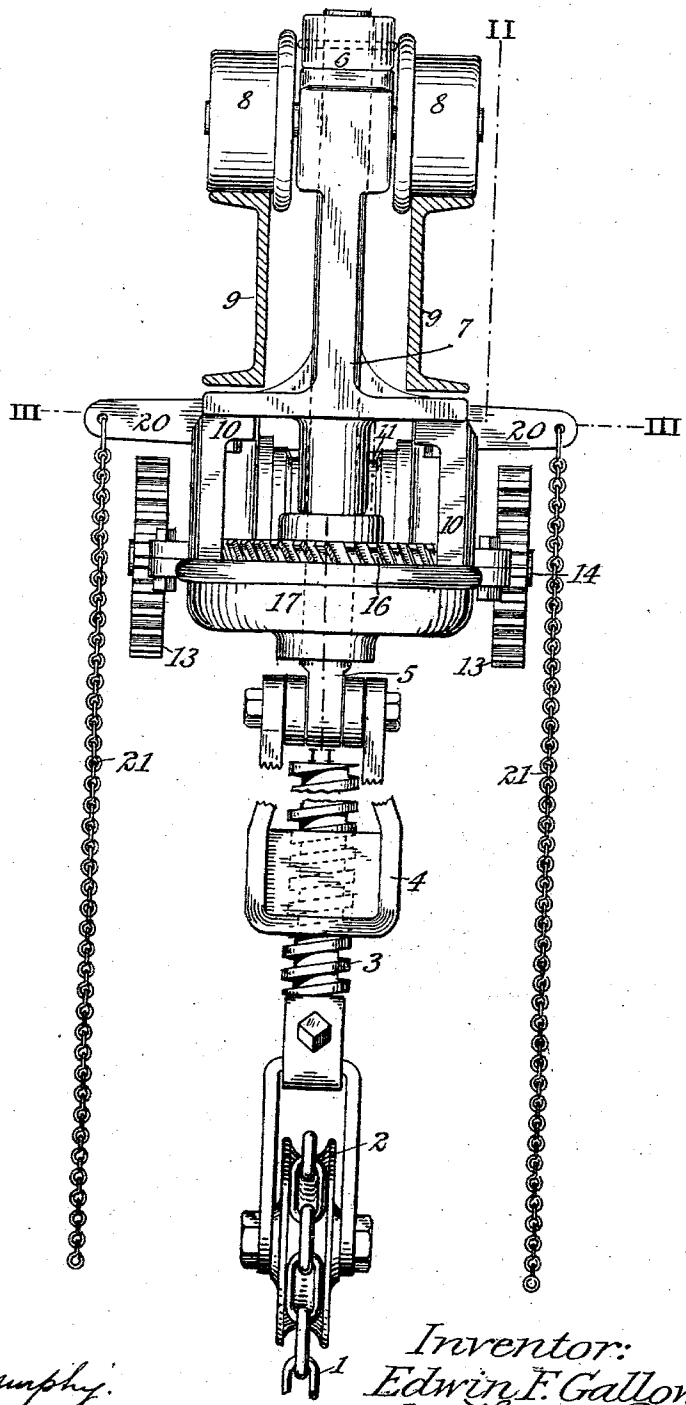
E. F. GALLOWAY, JR.

FORGING SUSPENDER.

NO MODEL. APPLICATION FILED NOV. 21, 1903.

3 SHEETS—SHEET 3.

Fig. 4



Witnesses:
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No. 752,218. Patented February 16, 1904.

UNITED STATES PATENT OFFICE.

EDWIN F. GALLOWAY, JR., OF NEWARK, NEW JERSEY, ASSIGNOR TO EMPIRE ENGINE AND MOTOR COMPANY, OF ORANGEBURG, NEW YORK, A CORPORATION OF NEW YORK.

FORGING-SUSPENDER.

SPECIFICATION forming part of Letters Patent No. 752,218, dated February 16, 1904.

Application filed November 21, 1903. Serial No. 182,162. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. GALLOWAY, Jr., a citizen of the United States of America, and a resident of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Forging-Suspenders, of which the following is a specification.

The object of this invention is to combine with the turnbuckle of a suspender for forgings while being operated on by steam-hammers and other forging apparatus a power device for the operation of the turnbuckle and the consequent adjustment of the height at which the forging is suspended.

In the accompanying three sheets of drawings, which form a part of this application, Figure 1 is a perspective view showing a crane and a steam-hammer and a power-operated forging-suspender which embodies my invention. Fig. 2 is a side view with the lower part in section on the line II II of Fig. 4 of a traversing carrier for the overhead track, together with the upper part of the turnbuckle for the forging-suspender, and showing in section the power apparatus for operating the turnbuckle which is supported by the traversing carriage. Fig. 3 is a horizontal section on the line III III of Figs. 2 and 4, showing the lower part of the traversing carriage. Fig. 4 is an end view of the traversing carriage, showing the overhead ways and the suspender.

In the form illustrated an endless chain 1 forms a loop within which is supported the forging or the stave to which the slabs for the forging are welded. The chain-loop passes over a sheave 2 in the suspender. This sheave is hung in the forked end of a screw 3. The screw taps into the lower end of a loop 4, the upper end of which is bolted to an eye in a pendent rod 5. A collar 6 is pinned to the upper end of the rod. These parts comprise the forging-suspender. The rod passes through the top flange of a traversing carriage 7, and the collar rests on this flange. The loop, together with the rod, can turn or revolve, while the screw is restrained from revolving by reason of its connection with the sheave and the chain-loop which passes around the forging, the forging being held with tongs by the workman. The rotatable parts of the suspender, together with the screw, constitute the turnbuckle. The traversing carriage comprises a main casting, to which wheels 8 are journaled. These wheels rest on an overhead track 9, which in the form illustrated is the jib of a crane. To the under side of the main casting of the traversing carriage two vertical plates 10 10 are bolted, and between these plates a motor 11 is supported. The motor, which is illustrated, is reversible and is designed for operation by compressed air. Through driving-gears 12 12 on the motor-shaft and following gears 13 13 on a worm-shaft 14 a worm 15 is driven. This worm engages a worm-wheel 16, which is keyed to the suspending rod 5 of the turnbuckle. A pan-shaped casting 17 is bolted to the under side of the vertical plates and carries a bearing for the suspending rod below the worm-wheel. This casting also serves as an oil-receptacle. The air for the motor is received through a flexible pipe 18 and a valve 19, with both inlet and exhaust ports, whereby the admission and direction of air through the motor is controlled and the motor is operated. To the two ends of a valve-lever 20 the two ends of a chain 21 are attached, and the chain hangs in a loop within reach of the workman in charge of the forging operation.

The occasion for adjustment of the length of the suspension arises from the necessity of bringing the forging to such a level that it will lie properly on the anvil, so as to be properly seated before being struck by the hammer. Whenever the forging departs from a regular form, such as a square or a circle, or is not in exact alinement with the stave by which it is supported, such adjustment becomes necessary at each turn of the forging in presenting new parts to the operation of the hammer. Power adjustment is important, owing to the weight of the forging and the

expedition with which such adjustment should be effected in order to avoid delay and consequent cooling of the parts which are being operated upon by the hammer.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination of a forging-suspender, a turnbuckle connected in the suspender, a motor and geared connections between the motor and the turnbuckle, substantially as described.

Signed by me in New York city this 20th day of November, 1903.

EDWIN F. GALLOWAY, JR.

Witnesses:

THOMAS EWING, Jr.,

SAMUEL W. BALCH.