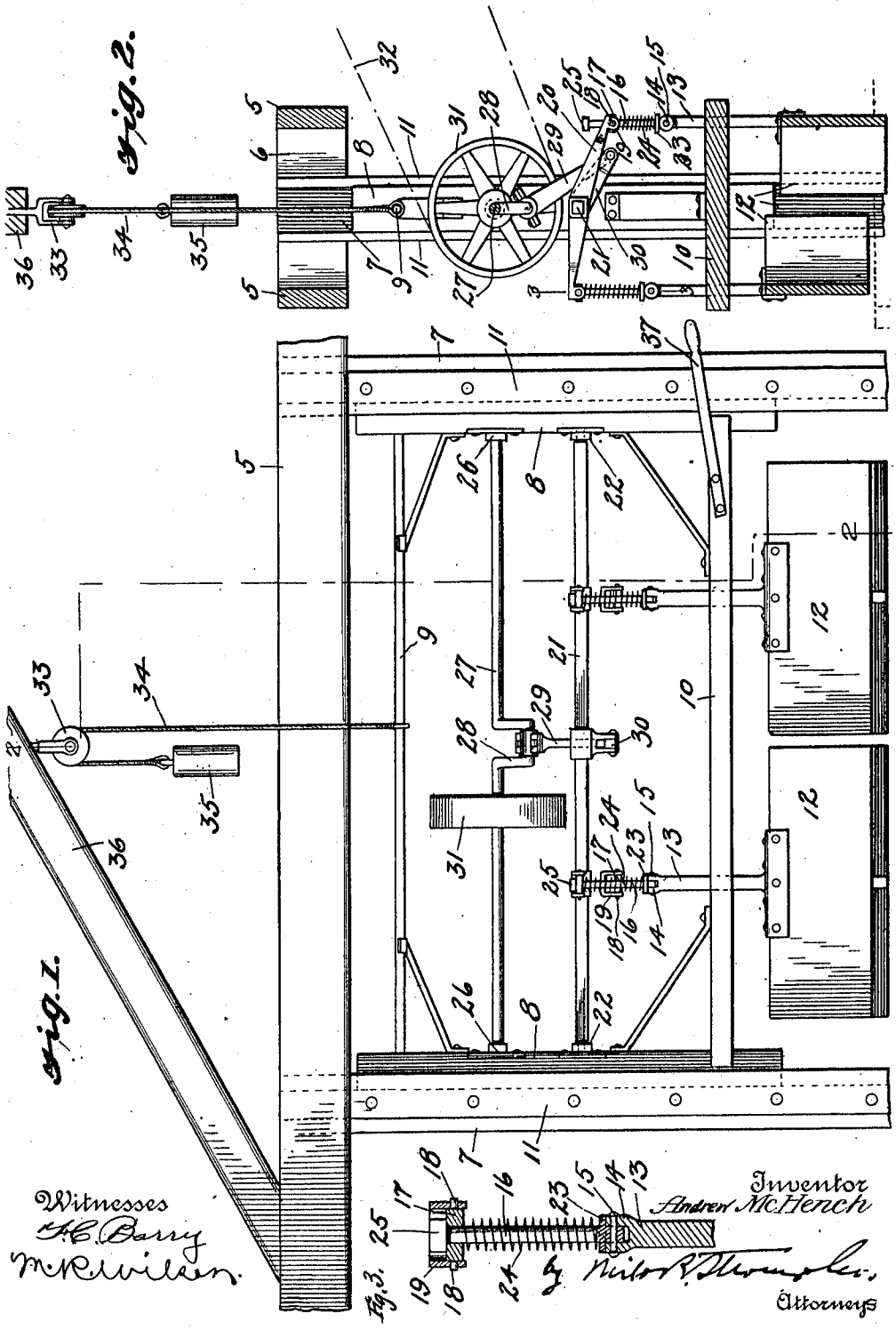
A. McHENCH.

TAMPER FOR BLOCK MOLDS.

APPLICATION FILED NOV. 12, 1910.

988,367. Patented Apr. 4, 1911.



Witnesses
H. C. Barry
M. R. Wilson.

Inventor
Andrew McHench
by Victor J. Evans & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ANDREW McHENCH, OF FARGO, NORTH DAKOTA.

TAMPER FOR BLOCK-MOLDS.

988,367. Specification of Letters Patent. Patented Apr. 4, 1911.

Application filed November 12, 1910. Serial No. 592,045.

To all whom it may concern:

Be it known that I, ANDREW McHENCH, citizen of the United States, residing at Fargo, in the county of Cass and State of North Dakota, have invented certain new and useful Improvements in Tampers for Block-Molds, of which the following is a specification.

This invention relates to tamping devices used in connection with molds for forming blocks of plastic material; and it is the object of the invention to provide a device of this kind which can be easily operated, and also one which is simple in construction and efficient in operation.

The invention also has for its object to provide a structure which enables the entire mechanism to be elevated after the block is finished, to permit the removal of the latter.

With these objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the accompanying drawing, forming a part of this specification, in which drawing—

Figure 1 is a front elevation of the device. Fig. 2 is a transverse section on the line 2—2 of Fig. 1, and Fig. 3 is an enlarged sectional detail on the line 3—3 of Fig. 2.

Referring specifically to the drawing, 5 denotes a pair of parallel joists or horizontal beams located a suitable distance above the floor and spaced apart. The joists are connected by cross pieces 6, and the latter support vertical beams or standards 7 which are spaced apart and are provided with guides in which the supporting frame of the tamping mechanism is mounted. Said supporting frame comprises vertical end bars 8 connected by top and bottom cross bars 9 and 10, respectively, suitably braced. This frame is slidable vertically between the beams 7, on opposite sides of which latter are secured guide strips 11 between which the bars 8 are slidably mounted. The joist 5 supports the upper ends of the beams 7, the lower ends of which may be supported on the floor of the shed or other structure on which the mold and the tamping device are located.

The mold with which the tamper coöperates has not been shown as it forms no part of the present invention.

The tampers proper are indicated at 12, four of such being shown, and they being grouped to conform to the shape of the block to be molded. To the top of each tamper is secured a stem 13, rising therefrom a suitable distance, and formed at its upper end with a bifurcation 14 between which is loosely received, and pivotally connected by a cross pin 15, one end of a pitman 16, the opposite end of which latter extends loosely through an opening in a block 17 having trunnions 18 on opposite sides, whereby said block is pivotally mounted between the bifurcated end 19 of a rocker arm 20 fixed to a rock shaft 21 journaled in suitable bearings 22 carried by the end bars 8. Between the block 17 and a collar or abutment 23 on the pitman 16 is located a spring 24, said spring being coiled around the pitman. Above the block 17, the pitman is formed with a head 25. The bars 8 also carry bearings 26 in which is journaled a shaft 27 having a crank 28 which is connected by a pitman 29 to an arm 30 projecting from and fixed to the shaft 21. By means of this connection between the shafts 27 and 21, the latter is rocked when the former is rotated. On the shaft 27 is a pulley 31 which is connected by a belt 32 to a suitable source of power. When the shaft 21 is in motion, the tampers 12 are reciprocated to operate on the material in the mold, by means of the connection between said shaft and the stems 13. In the cross bar 10 are openings through which the stems 13 loosely pass, and in which they are guided when in motion. It will be noted that the tampers deliver a yielding blow by reason of the loose connection between the pitmen 16 and the blocks 17. On the down stroke of the rocker arms 20 the blocks 17 slide downwardly on the pitmen, and compress the springs 24 and this compression on the springs continues until the stems 13 are forced downwardly to lower the tampers onto the material in the mold. On the upward or return stroke of the rocker arms, the blocks 17 slide upwardly on the pitmen until they engage the heads 25, whereupon the pitmen are raised and the tampers are thus elevated above the material in the mold, the springs 24 expanding as the blocks 17 slide upwardly on the pitmen.

The mechanism herein described is suspended in operative position from a pulley 33 by means of a rope or cable 34 connected at one end to the cross bar 9, and passing over said pulley, and to the other end of

which rope or cable is connected a weight 35 of sufficient capacity to balance the mechanism, and to hold the same in operative position. The pulley 33 is carried by one of the rafters 36 of the shed or other structure in which the mold and the tamping mechanism are located. By thus suspending the tamping mechanism it is possible to elevate the same after the block has been finished, the purpose of this being to raise the tampers out of the way of the mold to facilitate the removal of the finished block. The supporting frame of the tamping mechanism is provided with a handle 37 for raising the same, said handle being secured to the cross bar 10.

I claim:

1. In a tamping mechanism, a rock shaft, a rocker arm extending therefrom, a tamper, a pitman connected to the tamper, said pitman having an abutment, a block pivoted to the rocker arm, said block having an opening through which the pitman loosely extends, a head on the pitman engageable with one side of the block, a spring coiled around the pitman between the other side of the block and the aforesaid abutment, and actuating means for the rock shaft.

2. In a tamping mechanism, a rock shaft, a rocker arm extending therefrom, a tamper, a stem rising from the tamper, a pitman pivotally connected at one of its ends to the stem, said pitman having an abutment, a block pivoted to the rocker arm, said block having an opening through which the pitman loosely passes, a head on the pitman engageable with one side of the block, a spring coiled around the pitman between the other side of the block and the aforesaid abutment, and actuating means for the rock shaft.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW McHENCH.

Witnesses:
FRED J. KROGH,
PETER PICKTON.