

I. GROGG.
SCRAPER FOR BLOCK MACHINES.
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986,459.

Patented Mar. 14, 1911.

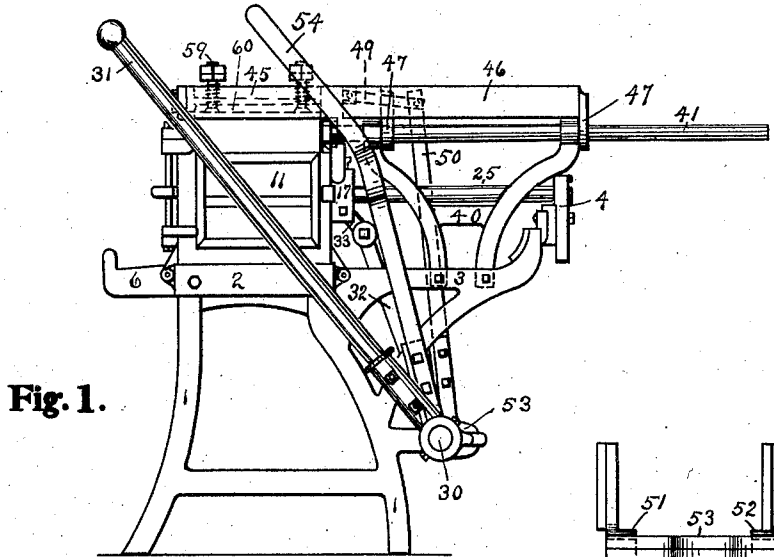


Fig. 1.

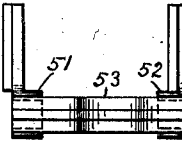


Fig. 5.

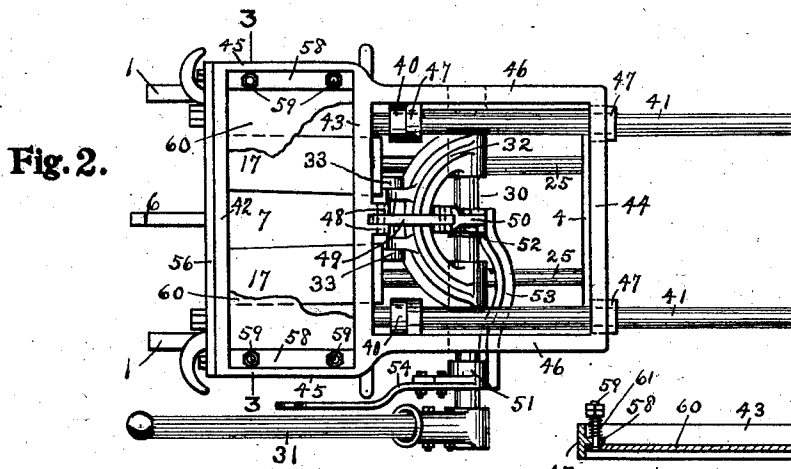


Fig. 2.

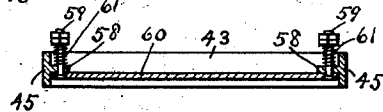


Fig. 3.

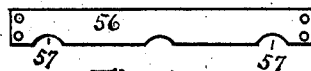


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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SCRAPER FOR BLOCK-MACHINES.

986,459.

Specification of Letters Patent.

Patented Mar. 14, 1911.

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To all whom it may concern:

Be it known that I, ISAAC GROGG, a citizen of the United States, and a resident of Auburn, in the county of Dekalb and State of Indiana, have invented a new and Improved Scraper for Block-Machines, of which the following is a specification.

This invention relates to a device for scraping off the surplus material from the tops of concrete block-molds, of the type shown by the Borst and Groscop Reissue Patent No. 12,578, dated Dec. 18, 1906, and the object of this construction is to provide a device which shall be strong, efficient, and readily attachable to machines of this class.

In the accompanying drawings, Figure 1 is a side elevation of a "face-down" block machine with this scraper mounted on the same. Fig. 2 is a plan of the same with the smoothing-plate partly broken away. Fig. 3 is a cross section of the scraper on the line 3—3 of Fig. 2. Fig. 4 is an elevation of the front plate of the scraper. Fig. 5 is a detail of the scraper actuating means. Similar reference characters refer to like parts throughout the several views.

The legs 1, base 2, arms 3, cross bar 4, bracket 6, bottom plate 7, end plates 11, cores 17, core-stems 25, hand-lever 31, shaft 30, actuating lever 32, and links 33 of the machine in the drawing are similar in construction and operation to those described in said patent to Borst and Groscop.

Secured to the arms 3 are brackets 40, which carry the guide-rods 41.

The scraper frame comprises the front cross-bar 42, intermediate cross-bar 43, rear cross-bar 44, side-bars 45 and 46, and downwardly extending lugs 47 which are perforated to receive the guide-rods 41. Projecting rearwardly from the cross-bar 43 are small lugs 48 between which is pivoted the link 49, which is also pivoted to the upper end of the actuating lever 50. Two collars 51 and 52 are loose on the shaft 30, and are connected by the yoke 53. To the collar 51 is secured the scraper-lever 54 and to the collar 52 is secured the actuating-lever 50. Movement of the scraper-lever will therefore cause a corresponding movement of the scraper. To the front cross bar 42 may be secured the scraper-plate 56 which may be formed with shallow notches 57. See Fig. 4. The side-bars 45 are preferably T shaped in cross-section, and the inwardly

extending flanges 58 are perforated for the bolts 59 which carry the smoothing-plate 60. Springs 61 on these bolts normally hold up the plate in the position shown in Fig. 3.

The operation of the scraper in connection with a block machine is as follows. The mold being filled and the material properly tamped, a portion will usually project above the upper edges of the sides of the mold. The scraper-lever is then drawn forward to the position shown in the drawings, causing the scraper-frame to slide forward over the mold, the plate 56 scraping off all superfluous block material. If the plate have the notches 57, ridges of material will be left above the spaces between and outside the cores 17. When the frame is thus brought forward, the plates 60 will be above the freshly molded block. A sharp blow on its upper surface, by any heavy tool, will press the plate down so that it will flatten out and smooth the top of the block. This can be satisfactorily accomplished when the tamping-machine shown by the Brandell Patent No. 943,966 dated Dec. 21, 1909 is used with the block-machine. The tamping-hammers are permitted to fall onto the plate 60, depressing the same and finishing the block. The springs 61 are of sufficient stiffness to support the plate 60 but yield at little pressure. After the plate 60 has been forced down and released, the lever 31 may be swung back, withdrawing the cores 17, and through the contact between the core-lever 32 and the scraper-lever 50, the former will force back the latter and with it, move the scraper from above the mold. The mold can then be opened and the block removed as described in the said Borst and Groscop patent.

Many changes in the details of the different parts may be made by those skilled in the art of block machines without departing from the spirit of my invention.

Having now explained my construction, what I claim to be my invention and desire to secure by Letters Patent is:—

1. In a block-machine, the combination of a mold, a frame for supporting the mold, a shaft mounted on said frame, brackets mounted on the frame, guides carried by the brackets, a scraper-frame slidably mounted on the guides, two levers loosely mounted on said shaft, a yoke connecting the same, and

a link connecting the upper end of one of said levers to the scraper-frame.

2. In a block machine, the combination of a mold and means to support the same, a frame slidably mounted above the mold, a smoothing-plate, and means for resiliently connecting the plate to the frame.

3. In a block-machine, the combination of a mold and means to support the same, a scraper-frame slidably above the mold, a smoothing-plate, bolts mounted in said frame to support the plate, and springs on the bolts to normally hold the plate in its elevated position.

4. In a block-machine, the combination of a mold and means to support the same, a scraper-frame slidably above the mold and comprising side-bars and cross-bars, bolts mounted on said frame, a plate supported by said bolts between the side-bars, and springs engaging the bolts to hold the plate in its elevated position.

5. In a block-machine, the combination of a mold, a frame supporting the same, brackets mounted on the frame, scraper guides carried by the brackets, a scraper frame comprising side- and cross-bars, and lugs engaging the guides, a shaft mounted on said frame, levers mounted on said shaft, and connections between the levers and between a lever and the scraper-frame for moving the same.

6. In a block-machine, the combination of a mold and means to support the same, a

scraper-frame slidably above the mold, a smoothing-plate, bolts mounted in said frame to support the plate, springs on the bolts to normally hold the plate in its elevated position, and a lever for moving said frame forward and backward over the mold.

7. In a block-machine, the combination of a mold and means to support the same, a scraper-frame slidably above the mold and comprising side-bars and cross-bars, a scraper-plate removably attached to the front cross-bar, bolts mounted on said frame, a plate supported by said bolts between the side-bars, springs engaging the bolts to hold the plate in its elevated position, and means to move the scraper frame forward and backward over the mold.

8. In a block machine, the combination of a mold, a frame supporting the same, brackets mounted on the frame, scraper guides carried by the brackets, a scraper-frame carried by the guides and comprising side- and cross-bars, a scraper-plate secured to the front cross-bar and having shallow notches in its lower edge, and levers to move the scraper forward over the top of the mold.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ISAAC GROGG.

Witnesses:

MICHAEL BOLAND,
W. I. WISE.

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