

25. PLASTIC BLOCK & EARTHENWARE APPARATUS,
Block Molding Machines.

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No. 835,201.

PATENTED NOV. 6, 1906.

D. P. SANDERS.
BRICK MACHINE.

APPLICATION FILED OCT. 10, 1905.

2 SHEETS—SHEET 1.

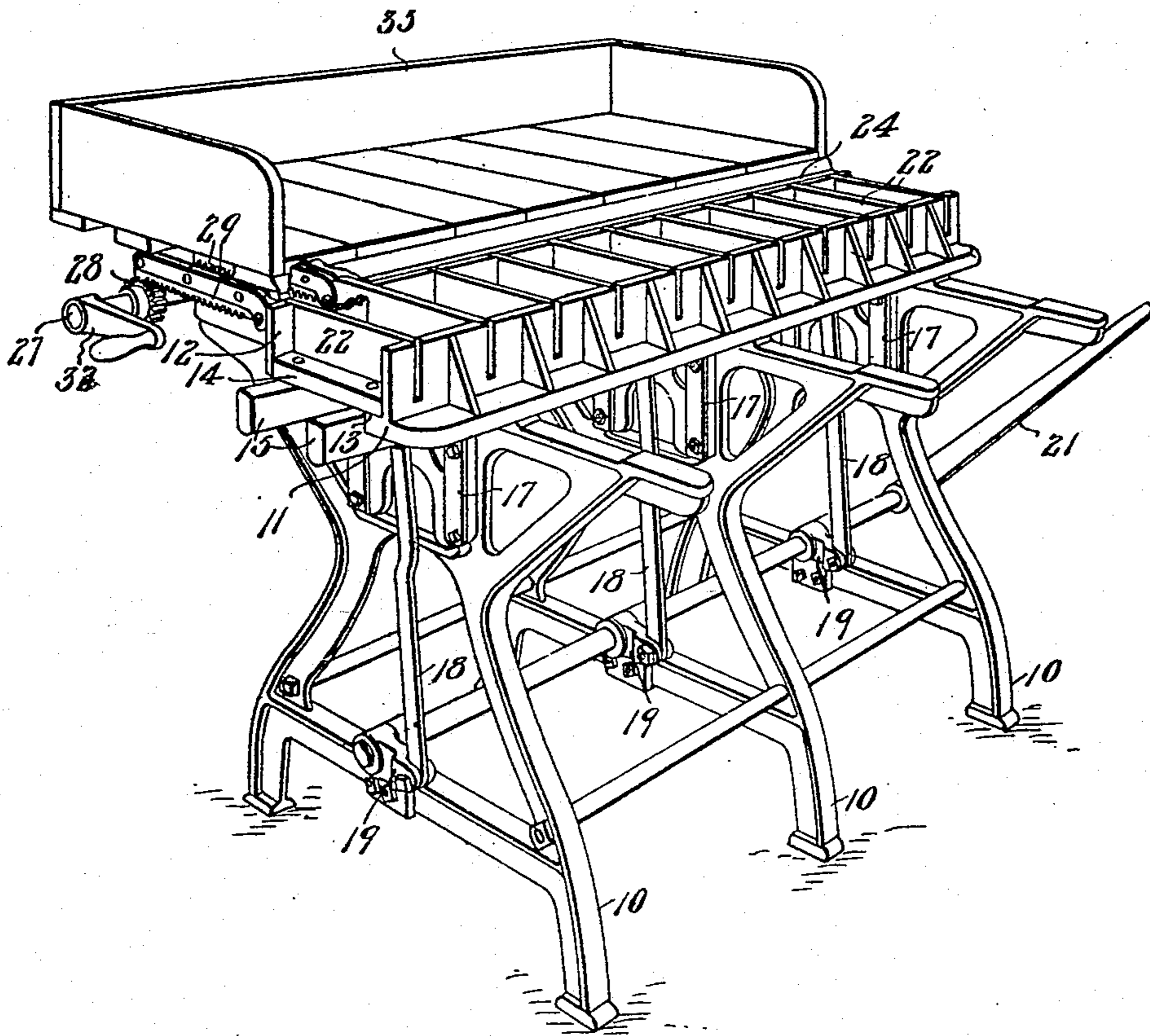


Fig. 1.

Witnesses

E. J. Stewart
J. W. Sanders

David P. Sanders,
Inventor.

by *C. A. Snow & Co.*
Attorneys



THE NORRIS PETERS CO., WASHINGTON, D. C.

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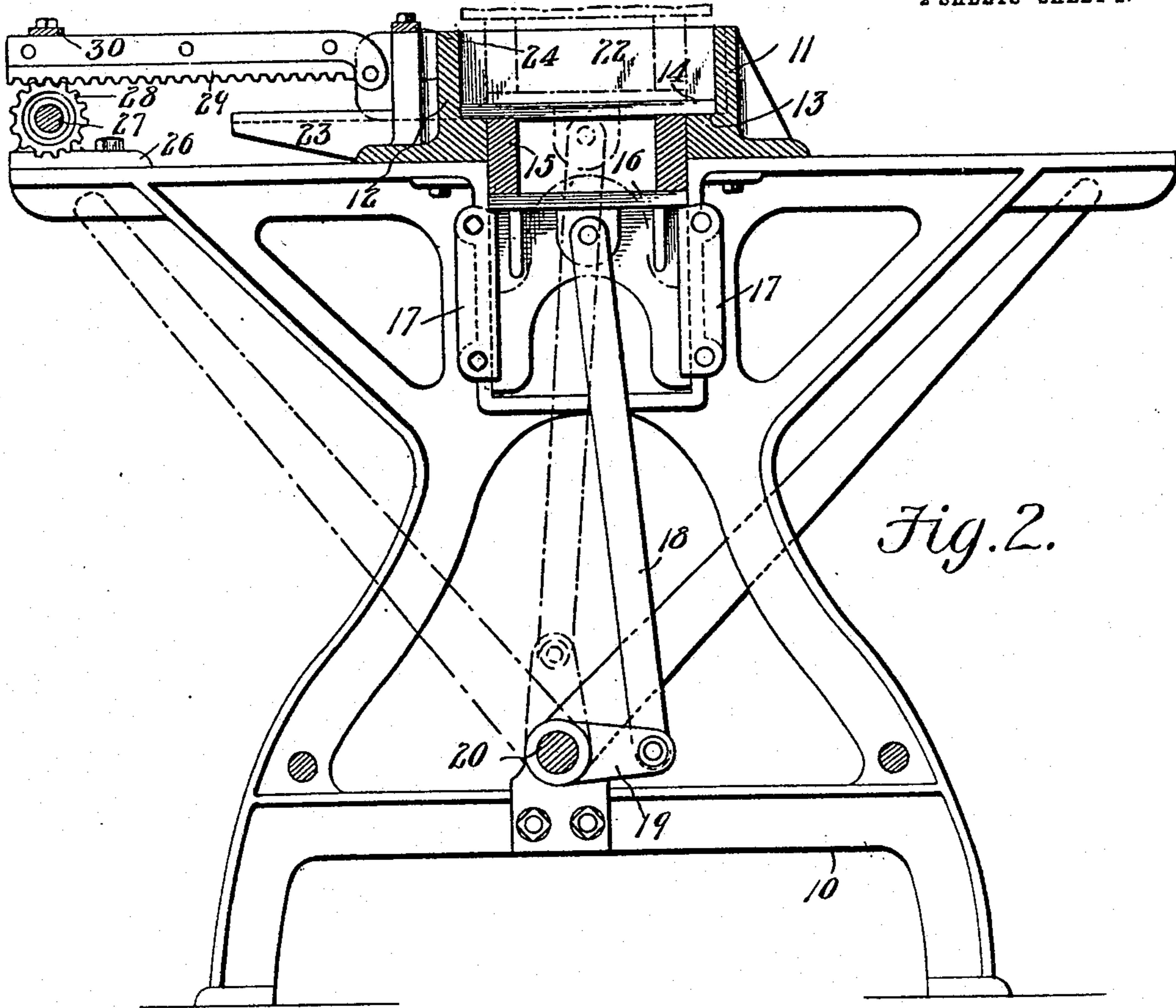
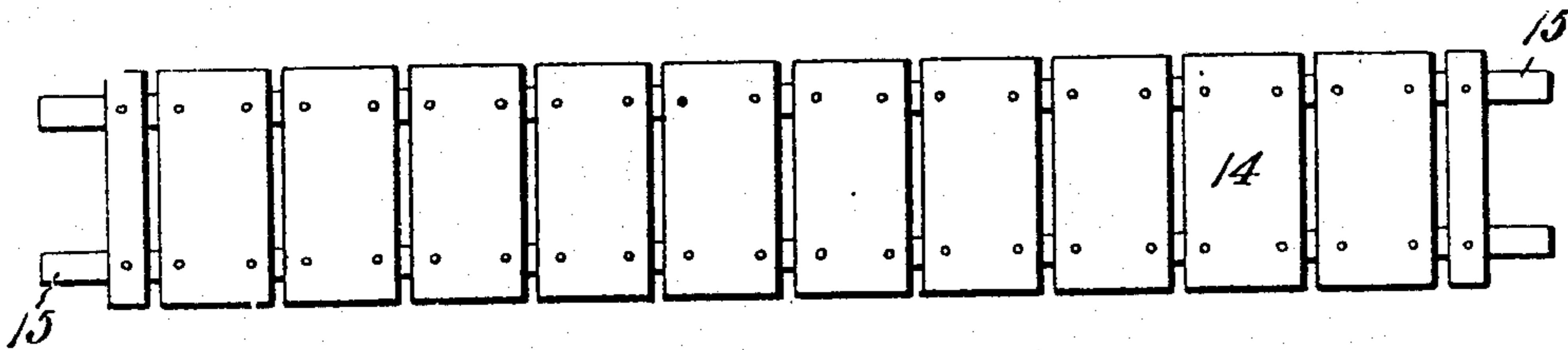


Fig. 2.

Fig. 3.



Witnesses

E. J. Stewart
Jno E. Parker

David P. Sanders,
Inventor

by *C. A. Snow & Co*
Attorneys

Amble, 679,232, July 23, 1901 (25-121)
British Pat. to Gaspar, 12,899 of 1903 (25-41)

UNITED STATES PATENT OFFICE.

DAVID P. SANDERS, OF READING, PENNSYLVANIA.

BRICK-MACHINE.

No. 835,201.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed October 10, 1905. Serial No. 282,202.

To all whom it may concern:

Be it known that I, DAVID P. SANDERS, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented a new and useful Brick-Machine, of which the following is a specification.

This invention relates to machines for the formation of blocks, bricks, and similar articles from concrete or other cement mixtures, and has for its principal object to provide a mechanism of simple construction adapted for the molding of a number of small blocks or bricks simultaneously, the apparatus being of such nature that the blocks may be formed very rapidly and quickly removed from the machine and placed on the drying-floor.

A further object of the invention is to provide a multiple molding-machine in which the mold-box proper is divided into a plurality of chambers or spaces by slidably-mounted partition-blocks, which are withdrawn endwise before the material has fully set, the partitions thus acting to trowel or smooth the edges of the blocks.

A still further object of the invention is to provide a multiple molding-machine in which the mold-space is arranged for the reception of a pallet that is divided by transverse grooves or spaces, and the mold-box is correspondingly provided with movable partitions that enter between said spaces, the partitions being first removed from place in order to permit the raising of the pallet and the blocks from position within the mold-box.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a block-molding machine constructed in accordance with the invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a plan view of the pallet detached.

Similar numerals of reference are employed

to indicate corresponding parts throughout the several figures of the drawings.

The working parts of the machine are supported upon a suitable frame, which in the present instance comprises three standards 10, that are rigidly connected at their upper ends by flanged cross-bars 11 and 12, said bars constituting the front and rear stationary side walls of the mold-box. The inner face of each of the bars is provided with a shoulder 13, on which rests a pallet 14, and the pallet in the present instance is formed of a large number of strips that are slightly spaced from each other and are secured to and carried by a pair of bars 15, the ends of which project beyond the pallet-surface proper and form carrying-handles.

The bars 15 rest on a number of vertically-movable slides 16, the opposite edges of which are adapted to suitable guides 17, bolted or otherwise secured to the standards, and each slide is connected by an abutment 18 to a rocker-arm 19 on a rock-shaft 20, that is adapted to suitable bearings in the lower portion of the frame of the machine. At one end of the rock-shaft is an operating-lever 21, which may be moved from the full-line position shown in Fig. 2 to the dotted-line position shown in the same figure in order to elevate the pallet and the blocks carried thereby.

Both the front and rear walls of the mold-box are provided with slots for the passage of partition-plates 22, the rear ends of said plates being supported in grooved arms 23, that extend outward from the lower portion of the bar 12, and said partition-plates are held depressed by a strip 24, that extends over the whole series of plates at a point just to the rear of the bar or mold member 12.

The upper rear portions of the standards are provided with bearing-blocks 26 for the reception of a shaft 27, to which are secured a number of pinions 28. Intermeshing with the pinions 28 are rack-bars 29, that are held down in engagement with the pinions by a transversely-extending strip 30. The forward ends of the rack-bars are pivotally connected to the rear ends of the slidable partitions 22, and when the shaft is turned by the crank 32 all of the partitions are moved simultaneously to or from position within the mold-box.

At a point above and to the rear of the mold-box is arranged a mixing board or

Amans, 769,771, Sep. 13, 1904

(25-121)

British Pat. to Erickson, 20,893 of 1903.

trough 35, on which the concrete or other cement mixture may be placed prior to its introduction within the mold.

In the operation of the device the partitions are all adjusted to the position shown in Fig. 1, and the material previously mixed and placed in position on the board or partition 35 is drawn over by a smoothing-trowel or the like, and all the mold-boxes are filled, the surplus material being troweled off in the usual manner. The crank 32 is then turned, and all of the partitions are simultaneously withdrawn from the mold-box, the partitions sliding in engagement with the surfaces of the blocks or bricks before the latter are fully set and finishing the surfaces. When the partitions are fully withdrawn, the operating-lever 21 is moved from the full-line position to the dotted-line position of Fig. 2, and its movement, transmitted through the rock-shaft 20 and pitman 18, elevates all of the slides 16, and the pallet 14, together with all of the molded rests, is raised to a position above the top of the mold-box in position to be removed to the drying-floor.

With an apparatus constructed in accordance with this invention a large number of bricks may be simultaneously made at comparatively small expense.

Having thus described the invention, what is claimed is—

1. The combination in a molding-machine

of a mold-box open at its opposite ends and having slotted front and rear walls, partitions arranged within said slots to divide the mold-box into molding-spaces, a pair of supporting-bars arranged below the mold-box, pallet members secured to said supporting-bars, a plurality of movable slides arranged under said bars, a rock-shaft, rocker-arms thereon, and connecting-rods extending between the rocker-arms and slides.

2. The combination in a molding-machine, of an open-ended mold-box having slotted front and rear walls, slidably-mounted partitions arranged to divide the mold-box into a series of mold-spaces, guiding and supporting means for the partitions, racks pivotally connected to said partitions, a cranked shaft having a series of pinions intermeshing with said racks, means for holding the racks in engagement with the pinions, a multiple pallet member forming the bottom of the mold-box, a series of vertically-movable slides supporting said pallet member, a rock-shaft operatively connected to said slides, and an operating-lever secured to the rock-shaft.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID P. SANDERS.

Witnesses:

MARY E. STAUFFER,
W. A. C. OAKS.