J. J. NIEBAUER.

POST MOLDING MACHINE.

APPLICATION FILED MAR. 2, 1908.

918,691.

Patented Apr. 20, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

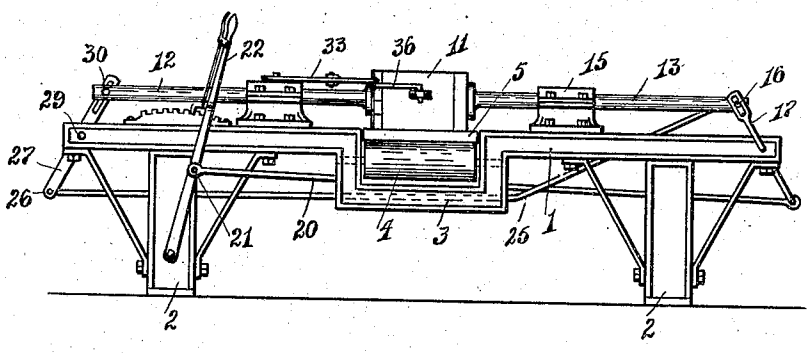
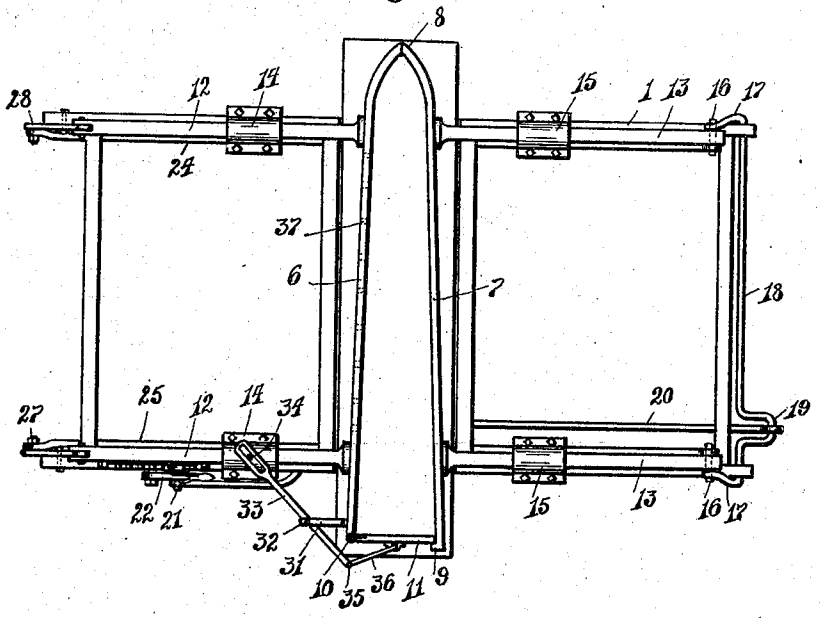


Fig. 2.



Witnesses:
George Oltsch
G. M. Cole.

Joseph J. Niebauer
Inventor.
By [signature]
Attorney.

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

J. J. NIEBAUER.

POST MOLDING MACHINE.

APPLICATION FILED MAR. 2, 1908.

918,691. Patented Apr. 20, 1909.

2 SHEETS—SHEET 2.

Fig. 3.

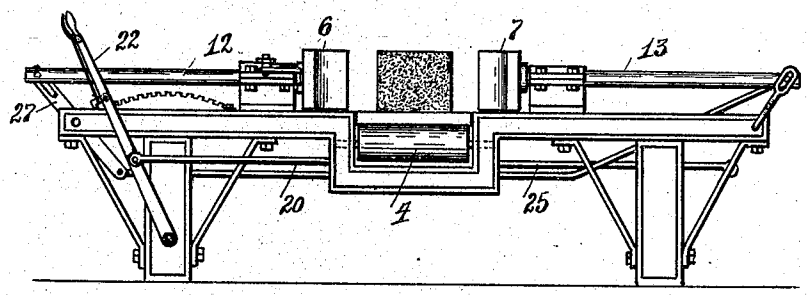
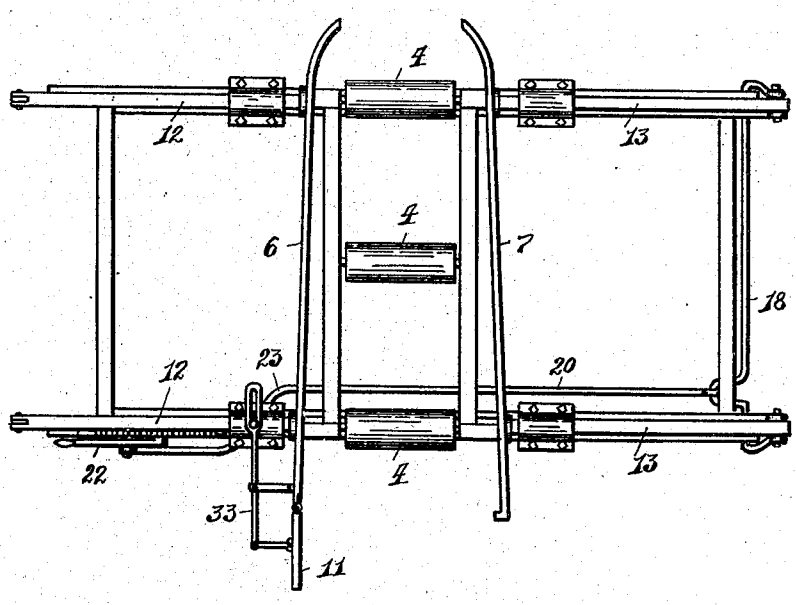


Fig. 4.



Witnesses:
George Oltsch
G. M. Cole.

Joseph J. Niebauer
Inventor
By [illegible]
Attny.

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

UNITED STATES PATENT OFFICE.

JOSEPH J. NIEBAUER, OF SOUTH BEND, INDIANA.

POST-MOLDING MACHINE.

No. 918,691. Specification of Letters Patent. Patented April 20, 1909.

Application filed March 2, 1908. Serial No. 418,803.

To all whom it may concern:

Be it known that I, JOSEPH J. NIEBAUER, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Post-Molding Machines, of which the following is a specification.

This invention relates to machines for molding concrete fence posts.

One object of the invention is to provide a machine of the nature embodying such characteristics that the mold may be assembled upon a single stroke of the operating lever and disassembled upon a reverse stroke of the operating lever.

Another object of the invention resides in the provision of a fence post molding machine embodying a mold constructed whereby fence wire fastening members may be embedded in the post during the molding operation of the latter.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and particularly pointed out in the appended claims, it being understood that changes may be made in the form, proportion, size and minor details without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings—Figure 1 is a side elevation of my invention illustrating the mold assembled in operative position. Fig. 2 is a top plan view. Fig. 3 is a side elevation illustrating the mold elements disassembled. Fig. 4 is a top plan view of the structure illustrated in Fig. 3 with the exception of the pallet board and post which are removed.

Referring now more particularly to the accompanying drawings the reference character 1 indicates a bed mounted upon suitable supporting standards 2 and provided with a transverse recess 3 in which is mounted a series of rollers 4 upon which the pallet board 5 is disposed and whereby the pallet board may be easily moved into position or removed from the frame without frictional contact with the bed of the frame incident to the moving of a pallet board over the fixed surface, as is customary.

The reference character 6 indicates one side of the mold and 7 the opposite side thereof, the corresponding ends of the sides 6 and 7 converging into a point 8 to form the top of the post and the side 7 having a shoulder 9 for the purpose presently explained.

Hingedly connected to the side 6, as at 10, is a base end 11 whose free edge is adapted to engage behind the shoulder 9 to prevent accidental movement of the end 11 from its operative position.

Connected to the sides 6 and 7 intermediate their ends are pairs of shift rods 12 and 13 respectively which are slidably mounted in and guided by the respective bearings 14 and 15.

Mounted in the free ends of the shift rods 13 are pins 16 which project upon opposite sides of the shift rods. Connected to the outer ends of these pins 16 are the upwardly directed ends 17 of a crank shaft 18 whose crank bend 19 has connected with it one end of a connecting rod 20 whose opposite end is pivotally connected at 21 to the operating lever 22, it being noted that the rod 20 is curved as indicated at 23 so that it may project from beneath the bed of the frame outwardly thereof for connection with the operating lever 22.

Connected to the inner ends of the pins 16 are rods 24 and 25 which are pivotally connected at 26 to the lower ends of the levers 27 and 28, respectively, which latter in turn are pivoted intermediate their ends to the bed as indicated at 29, the opposite ends of the levers 27 and 28 having slidable and pivotal connection at 30 with the pairs of shift rods 12, as clearly shown in the drawings.

Projecting from the base end of the side 6 is an arm 31 to which is pivoted at 32 a lever 33 having pivotal and sliding connection at 34 to one of the bearings 14 and at its opposite end having a pivotal connection 35 to the arm 36 which latter is pivotally connected to the base end 11, as shown all for the purpose presently understood.

The side 6, intermediate the shift rods 12 is provided with a series of perforations 37 through which wire loops or other fastening members for the fence wires (not shown) may be inserted and molded into the post during the formation of the latter.

In the use of my improved machine the parts are assembled, as shown in Figs. 1 and 2. The cementitious material is then placed within the mold and when the latter is half filled with material the aforesaid fence wire fastening members (not shown) are inserted in the perforations 37 of the side 6, and then

the mold is completely filled with the material. The material is then tamped at the top of the mold and the wire fastenings are firmly secured in the post. By throwing the operating lever 22 from the position shown in Fig. 1 to the position shown in Figs. 3 and 4, the sides 6 and 7 will be separated, as shown in these latter figures, and by virtue of the connections 31, 33 and 36 the base end 11 will also be moved upon its hinged connection 10 to the position shown in Figs. 3 and 4. It will be obvious that by throwing the lever back to the position shown in Figs. 1 and 2 that the mold will be assembled. When the mold is disassembled, the pallet board 5 may be easily removed with the molded post thereon, and as many pallet boards as are needed may be used.

What is claimed is:—

1. In a fence post molding machine, a frame having a transverse recess, a series of rollers mounted in the recess, a pallet board disposed upon the rollers, a mold including oppositely disposed side members converging toward each other at one end and one side having a shoulder at its opposite end, and an end member hingedly connected to the opposite end of the opposite side member, a pair of shift rods connected to each of said side members, bearings for the shift rods, an operating lever pivoted upon the frame, a crank shaft having its ends connected to the outer ends of one pair of shift rods, a connection between the crank shaft and operating lever, levers pivoted intermediate their ends to the frame, said last mentioned levers being pivoted at their upper ends to the second set of shift bars, and connections between the first mentioned pair of shift bars and said second mentioned levers, whereby movement of the operating lever will move the sides of the mold toward and away from each other, and means having connection with said end of the mold and one side member of the latter whereby the end member may be thrown into and out of operative position upon operation of the side members of the mold, the said shoulder of one of the sides holding the end member in operative position.

2. In a fence post molding machine, a frame having a transverse recess, a series of rollers mounted in the recess, a pallet board disposed upon the rollers, a mold including oppositely disposed side members converging toward each other at one end and one side having a shoulder at its opposite end, and an end member hingedly connected to the opposite end of the opposite side member, a pair of shift rods connected to each side of said side members, bearings for the shift rods, an operating lever pivoted upon the frame, a crank shaft having its ends connected to the outer ends of one pair of shift rods, a connection between the crank shaft and operating lever, levers pivoted intermediate their ends to the frame, said last mentioned levers being pivoted at their upper ends one to the second set of shift bars, and connections between the first mentioned pair of shift bars and said second mentioned levers, whereby movement of the operating lever will move the sides of the mold toward and away from each other, an arm projecting from one of the side members, a lever pivoted to said arm, and a connection between the last mentioned lever and the end member of the mold to shift the end member into and out of operative position during similar movement of the side members.

3. In a fence post molding machine, a frame having a transverse recess, a pallet board mounted within said recess, a mold including sides converging at one end into a point, one side being longer than the other and provided with a shoulder, a base end hingedly connected to one side and arranged for engagement behind said shoulder when the mold is assembled, sets of shift rods, a crank shaft having connection with one set of shift rods, an operating lever, a connection between the operating lever and said crank shaft, other levers having connection with the other set of shift rods, connections between the first mentioned set of shift rods, and said other levers, and means having connection with the base end of the mold to operate the latter with the operation of the sides upon movement of the operating lever.

4. In a fence post molding machine, a frame having a transverse recess, a pallet board mounted within said recess, a mold including sides converging at one end into a point, one side being longer than the other and provided with a shoulder, a base end hingedly connected to one side and arranged for engagement behind said shoulder when the mold is assembled, sets of shift rods, a crank shaft having connection with one set of shift rods, an operating lever, a connection between the operating lever and said crank shaft, other levers having connection with the other set of shift rods, connections between the first mentioned set of shift rods and said other levers, an arm carried by one of the sides of the mold, a lever pivoted to said arm, and a connection between the last mentioned lever and the base end of the mold to operate the base end upon operation of the sides of the mold when the operating lever is moved.

5. In a fence post molding machine, a frame, a mold including a pallet board, oppositely disposed sides converging at one end into a point, a base end hingedly connected to one of the sides at its opposite end, one of said sides having perforations intermediate its ends, means for throwing the sides into and out of operative relation, an arm carried by one of the sides of the mold, a lever piv-

oted to said arm, and a connection between said lever and the base end of the mold to operate the base end upon operation of the side of the mold when the latter is thrown into and out of operative relation.

6. In a fence post molding machine, a frame, a mold including a pallet board, oppositely disposed sides converging at one end into a point, a plate hingedly connected to one of the sides at its opposite end, means whereby the sides of the mold may be moved into and out of operative relation, an arm secured to one of the sides, a lever pivoted to said arm, and a connection between said lever and said base end to operate the latter when the sides are moved into and out of coöperative relation.

7. In a fence post molding machine, a frame having a transverse recess, rollers mounted in said recess, a pallet board mounted within said recess upon said rollers, a mold including sides converging at one end into a point, a base end hingedly connected to one of the sides at its opposite end, means for throwing said sides into and out of operative relation, an arm secured to one of the sides, a lever pivoted intermediate its ends to said arm, and a connection between said lever and the base end of the mold to throw the base end into and out of operative relation with the sides according to the movement of the sides.

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

JOSEPH J. NIEBAUER.

Witnesses:

GEORGE OLTSCH,

G. M. COLE.