

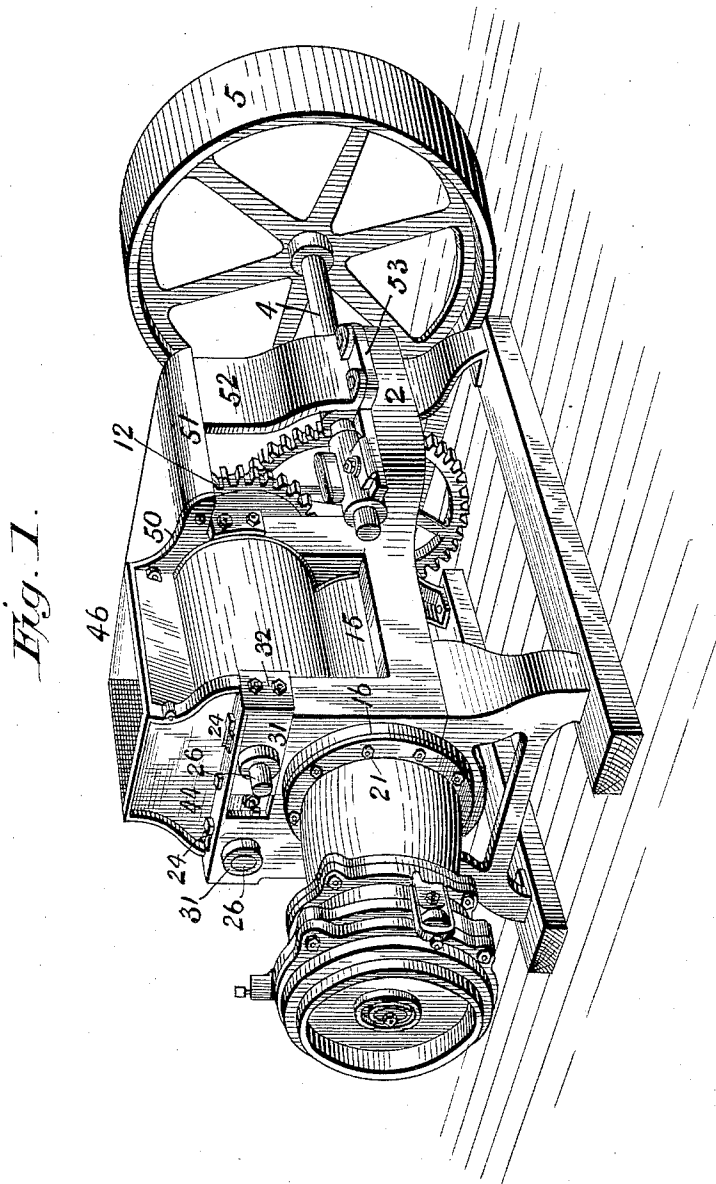
(No Model.)

3 Sheets—Sheet 1.

E. M. FREESE.
BRICK AND TILE MACHINE.

No. 468,651.

Patented Feb. 9, 1892.



Witnesses:
H. L. Curand.
J. L. Bloomer

Inventor:
Egbert M. Freese.

By his Attorneys,
James Bagges & Co.

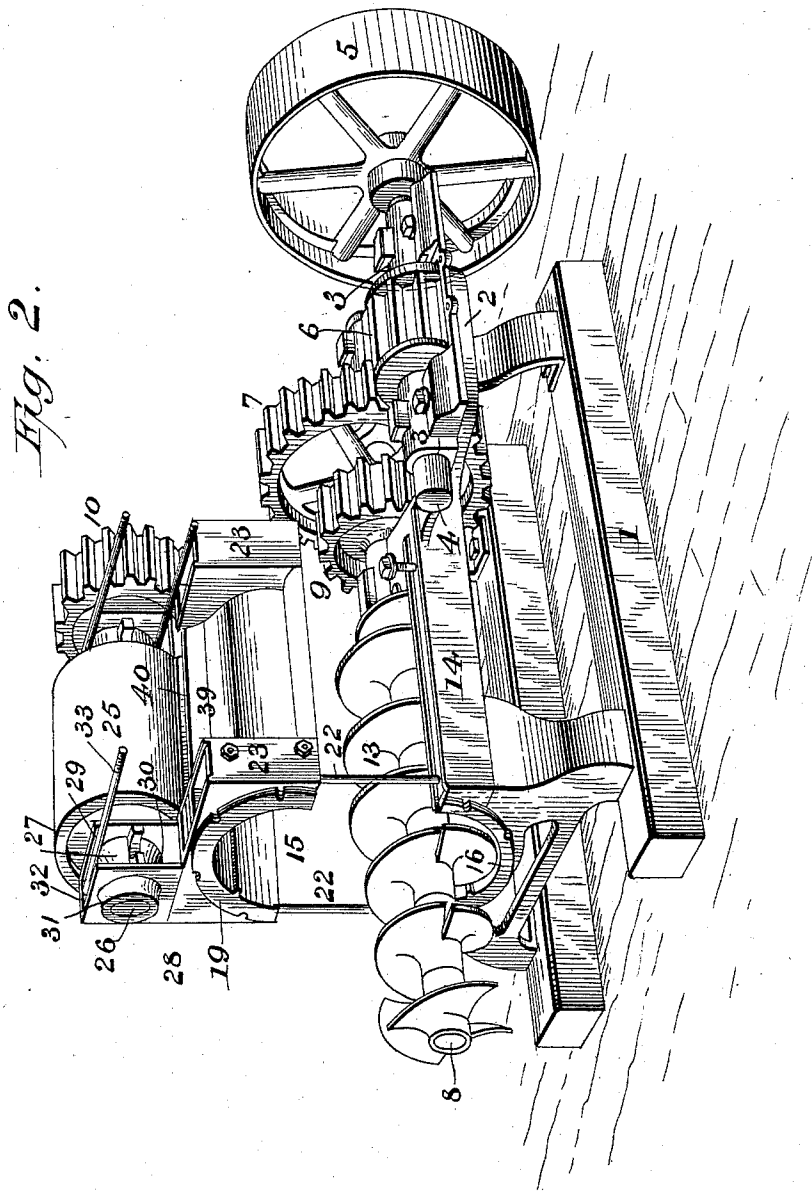
(No Model.)

3 Sheets—Sheet 2.

E. M. FREESE.
BRICK AND TILE MACHINE.

No. 468,651.

Patented Feb. 9, 1892.



Witnesses:
F. L. Ourand.
J. L. Blooms

Inventor:
Egbert M. Freese.
By his Attorneys,
Sims, Gager & Co.

UNITED STATES PATENT OFFICE.

EGBERT M. FREESE, OF PLYMOUTH, OHIO.

BRICK OR TILE MACHINE.

SPECIFICATION forming part of Letters Patent No. 468,651, dated February 9, 1892.

Application filed June 11, 1891. Serial No. 395,917. (No model.)

To all whom it may concern:

Be it known that I, EGBERT M. FREESE, a citizen of the United States, and a resident of Plymouth, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Brick or Tile Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to brick and tile machines, the object being to provide an improved machine of this character which will possess superior advantages with respect to simplicity and stability in construction and efficiency in operation.

The invention consists in the novel construction and combination of parts hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a brick or tile machine constructed in accordance with my invention. Fig. 2 is a similar view of the same, the front section being removed and the upper half of the rear section detached from the frame or bed in order to more clearly show the construction, parts of said upper half being also removed for the same purpose. Fig. 3 is a similar view of the rear portion of the bed or frame, the driving-gear being removed. Figs. 4, 5, and 6 are detail perspective views.

In the said drawings, the reference-numeral 1 designates the frame or bed of the machine, provided at its rear end with an extension 2, formed integral therewith, which supports and carries the driving-gear. Journaled in boxes 3 in this extension is the driving-shaft 4, having driving-pulley 5 and a pinion 6, which meshes with a cog-wheel 7 on the conveyor-shaft 8, which is also journaled in the frame or bed 1. The shaft 8 is provided with another cog-wheel 9, which meshes with either of two cogs 10 or 12, secured to the shafts of the crushing-rollers, hereinafter described. The rear-section cylinder, in which is located the conveyor-shaft, carrying the spirals or auger-blades 13, is made in two semi-cylindrical parts 14 and 15, the lower part 14 of

which is formed integral with the frame or bed 1. These two parts on their front faces are provided with segmental outwardly-projecting bosses 16, which the rear end of the front cylinder fits over when said parts are placed together. These cylinders are formed with bolt-holes 19 to receive ordinary bolts 21, by which they are held together. Projecting upwardly from the corners of the bed or frame 1 are rods or bars 22, which pass through the angular heads 23 of the upper rear section 15 of the pugging-cylinder, and are provided at their upper ends with screw-threads, with which engage securing-nuts 24. Mounted upon this upper section 15 are the crushing-rollers 25, provided with shafts or journals 26, which have their bearings in boxes 27, consisting of the plates 28 and 29, with an intermediate hub 30, having lugs 30^a, and an outwardly-projecting hub 31, all made integral or cast in one piece. Against these boxes, which rest upon the heads 23, abut end plates 32, connected together by the rods 33, provided with securing-nuts 34, by which any outward lateral movement or spreading apart is prevented by reason of stones or other foreign substances being fed to the crushing-rollers. Intermediate of the plates 28, at each end of the section 15, is a plate 35, provided with a screw-bolt 36, which abuts against a loop 37, formed with or secured to an upwardly-extending plate 38, the lower end of which rests upon a scraper 39, located beneath the crushing-rollers and provided with a longitudinal slot 40, which registers with a corresponding slot 41 in the said section 15. This scraper is also provided with outwardly-projecting lugs or studs 42, fitting in recesses in the inner faces of the heads 23. Connected with these studs are upwardly-projecting bars 43, which pass through flanges 44 of the ends 45 of the hopper 46, located above the crushing-rollers, said bars being screw-threaded at their upper ends to receive the securing-nuts 47. The sides and ends of the hopper are connected together by means of the lugs and bolts 48 and 49. By means of the bolts 36, bearing against the loops 37, the plates 38 can be forced up against the ends of the rollers, thus preventing leakage of the clay at said ends while being forced into the cylinder below. The rear end of the

hopper is provided with a lateral extension 50, which is connected with a horizontal arm 51, secured to or formed with the curved vertical arm 52, having a flange 53, with bolt-
 5 holes or bolts 54, by which it is secured to the bed or frame 1, forming a shield for protecting the gearing from falling dirt. The crushing-rollers are provided with cog-wheels 10 and 12.

10 In setting up or assembling the machine the upper section 15, the scraper, and the hopper are secured together by means of the studs 42 and bars 43. The journal-boxes carrying the crushing-rollers are then placed in
 15 position and the end plates 32 are connected together by the rods 33, when the said section can be placed upon the vertical rods or bars 22, which project through the end flanges of the hopper, where they are provided with securing-nuts.

20 The foregoing description is given for the purpose of showing the manner of connecting the parts together, it being obvious that they need not be fitted or assembled in the order
 25 named.

The gearing and the conveyer and driving shafts and their connections and operation will be readily understood without further description.

30 It is not deemed necessary to illustrate the usual die connected with the forward end of the front section of the pugging-cylinder, as it may be of any ordinary or suitable construction, and forms no part of the present invention.
 35

Having thus described my invention, what I claim is—

1. In a brick or tile machine, the combi-

nation, with the bed or frame having formed integral therewith the lower half of the rear
 40 section of the pugging-cylinder and the upwardly-extending rods, of the removable upper half of said cylinder, the crushing-rollers, the boxes forming the bearings for the journals of said rollers, and the plates and lateral
 45 bars or rods for preventing outward lateral movement of said boxes, substantially as described.

2. In a brick or tile machine, the combination, with the bed or frame and the pug-
 50 ging-cylinder, of the slotted scraper, the upwardly-extending plates resting thereon, with outwardly-extending loops, the crushing-rollers, the plates and hubs forming the bearings
 55 for the journals thereof, the intermediate plates and screw-bolts bearing against said loops, the plates and bars for preventing lateral movement of said bearings, and means,
 60 substantially as described, for driving said rollers.

3. In a brick or tile machine, the combination, with the bed or frame and the pug-
 65 ging-cylinder, of the slotted scraper having lugs or studs fitting in recesses in the upper half of the pugging-cylinder, the upwardly-extending plates, the flanged hopper, and the arms connected with the hopper and the lugs or studs, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature 70 in presence of two witnesses.

EGBERT M. FREESE.

Witnesses:

FRANK C. BODINE,
 EDITH K. DRENNAN.