No. 656,308. Patented Aug. 21, 1900.

R. VAN DEN BERG & G. JANSSEN.

AUTOMATIC MACHINE FOR MANUFACTURING BRICKS OR ARTIFICIAL STONE.

(Application filed Apr. 21, 1899.)

(No Model.) 3 Sheets—Sheet 1.

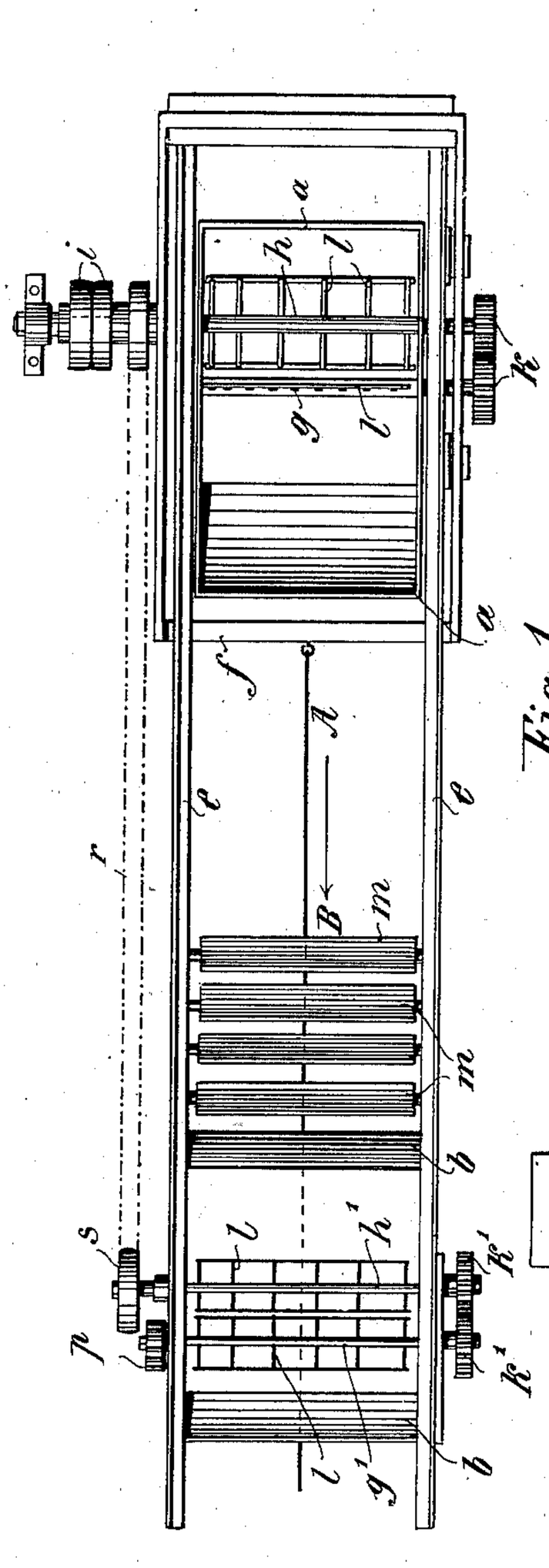

Fig. 1.

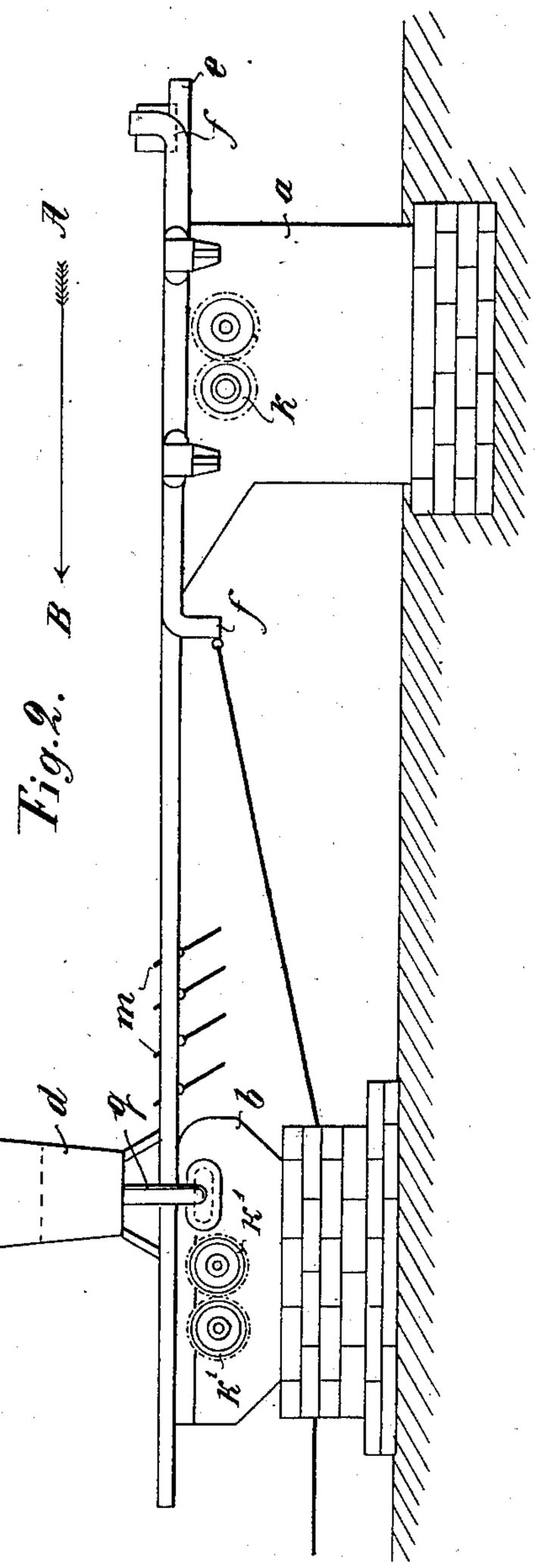

Fig. 2.

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Fig. 4.

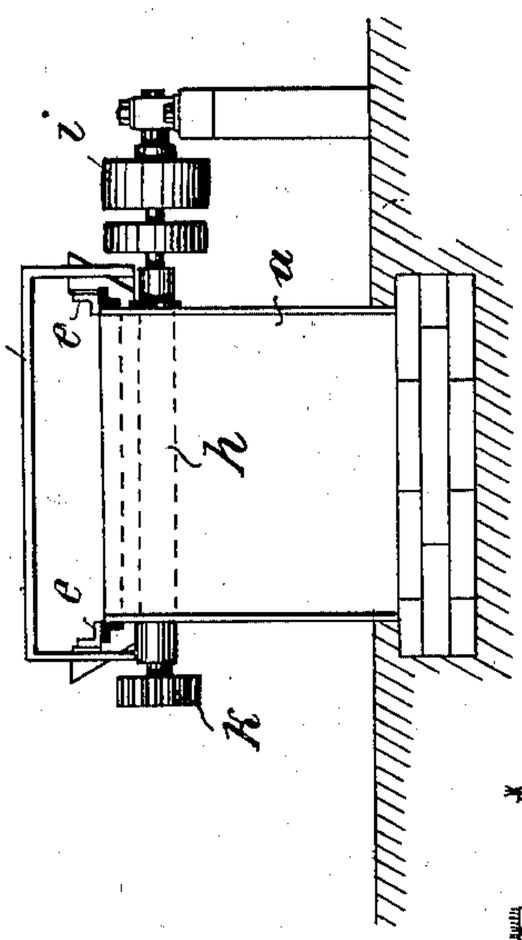


Fig. 6.

Fig. 5.

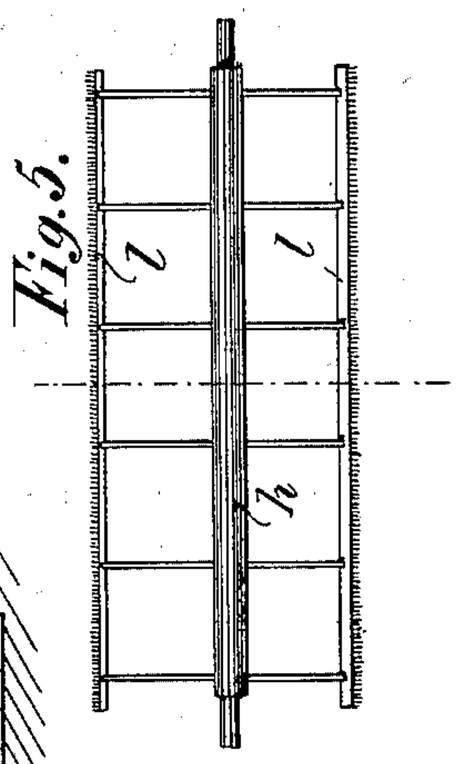
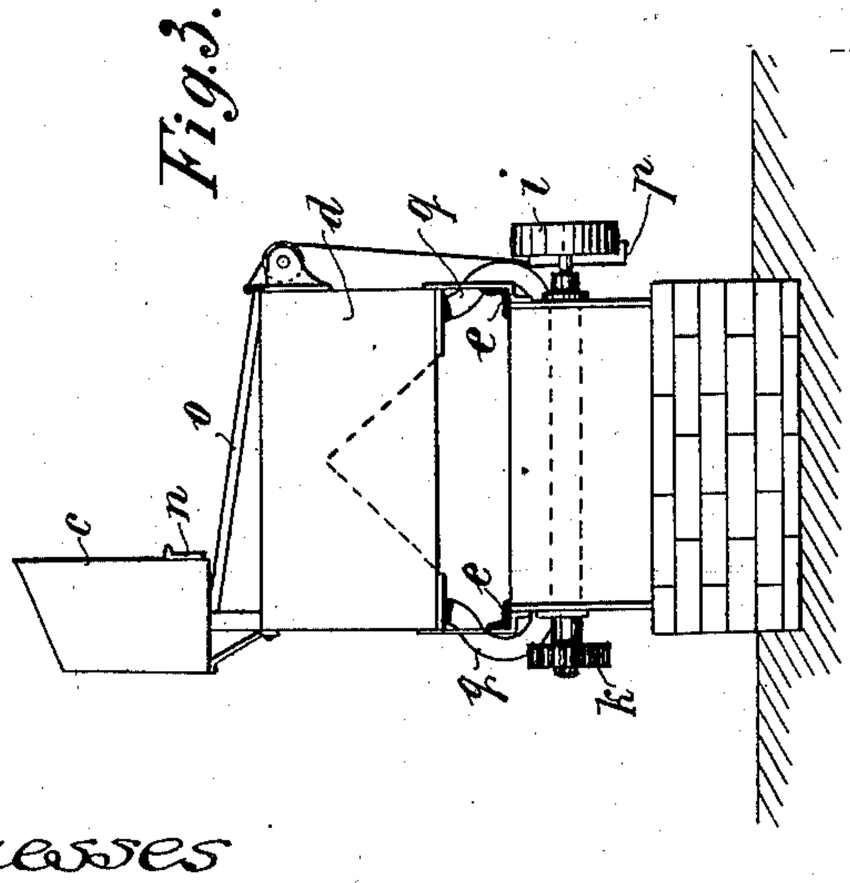


Fig. 3.



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(No Model.) (Application filed Apr. 21, 1899.) 3 Sheets—Sheet 3.

Fig. 7.

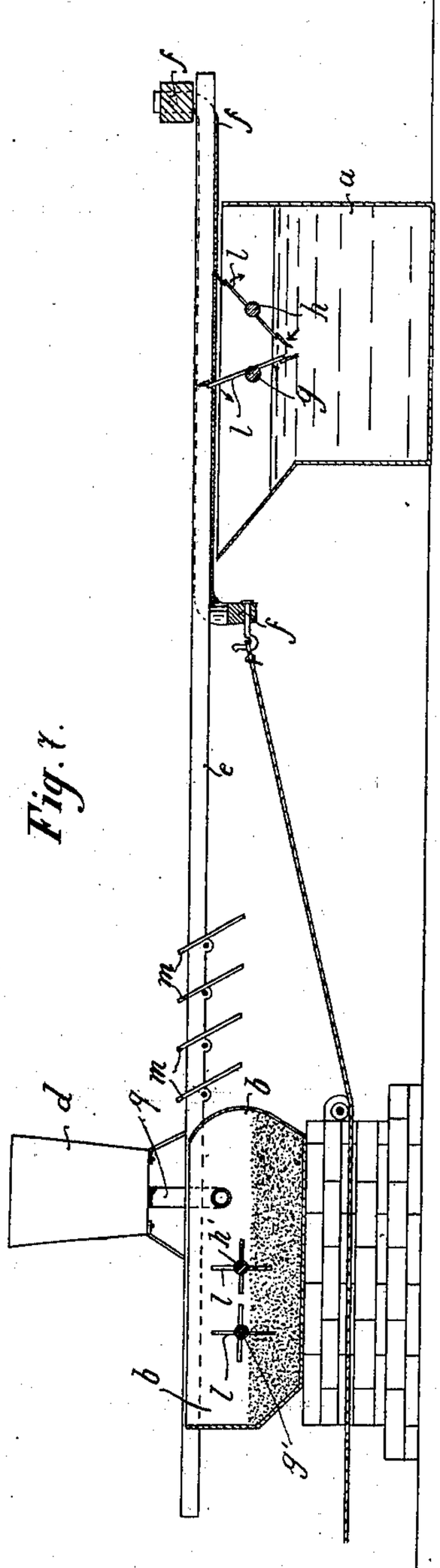

Fig. 8.

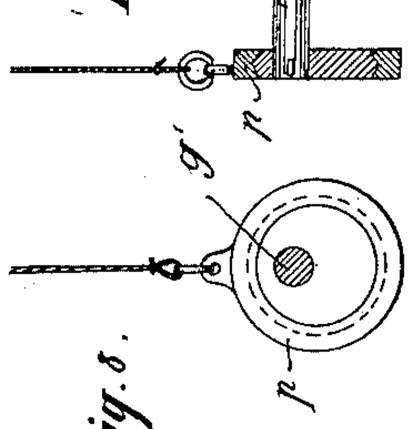

Fig. 9.

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by Wm. A. Rosenbaum
Atty.

UNITED STATES PATENT OFFICE.

ROELOF VAN DEN BERG AND GERRIT JANSSEN, OF DRUTEN, NETHERLANDS.

AUTOMATIC MACHINE FOR MANUFACTURING BRICKS OR ARTIFICIAL STONE.

SPECIFICATION forming part of Letters Patent No. 656,308, dated August 21, 1900.

Application filed April 21, 1899. Serial No. 713,863. (No model.)

To all whom it may concern:

Be it known that we, ROELOF VAN DEN BERG and GERRIT JANSSEN, subjects of the Queen of the Netherlands, residing at Druten, Netherlands, have invented certain new and useful Improvements in Automatic Machines for Rinsing the Molds for Bricks and Artificial Stone and Distributing Sand Over the Inner Surface of Same, of which the following is a specification.

In the manufacture of bricks and artificial stone it is of great importance that each mold be well cleaned after use and that sand be distributed over the interior in order to enable the easy extraction of the next brick or stone formed in the same.

The object of this invention is to accomplish this work, which has hitherto been done by hand, in a rational and reliable manner.

From the accompanying drawings the details of the machine will be apparent.

Figure 1 is a plan of the machine, the sand-reservoir being removed. Fig. 2 is a side elevation of the complete machine. Fig. 3 is a front elevation of the apparatus for distributing the sand over the inner surface of the molds. Fig. 4 is a front elevation of the rinsing apparatus. Figs. 5 and 6 represent the agitator used in the rinsing apparatus in elevation and section, respectively. Fig. 7 is a longitudinal section of the apparatus, and Figs. 8 and 9 are details of the sieve-shaking device.

The rinsing apparatus *a* is filled with water, which is maintained at a predetermined height by regulating the inlet from the water-main and the outflow. Two spindles *g* and *h*, provided with two or more rows of agitators and brushes *l*, are arranged within this apparatus. These spindles are rotated by means of the driving mechanism *i i*, which consists of two pulleys (loose and fast) and of the spur-wheels K K, so that a part of the water in the rinsing apparatus is whirled powerfully upward by the agitators *l* and against the molds, which are moved with the opening downward from A toward B over the bridge *e e*. Instead of the pulleys above mentioned spur-gearing may of course be used. By the action of the water the molds are cleansed from all particles of earth, clay, and sand, whereas the brushes *l*, likewise arranged on the spindles *g* and *h*, clean their downwardly-directed edges. After passing through the rinsing apparatus the molds arrive on the bridge between *a b*, where the water runs off in drops. Any drops remaining on the molds upon their arrival at *b* are removed by the pivoted wipers *m*.

The action of the sand-distributing apparatus is similar to that of the rinsing apparatus, sand being thrown up, however, instead of water. Upon the spindles *g'* and *h'* two or more rows of agitators are arranged and no brushes.

The spindles *g'* and *h'* are rotated from the rinsing apparatus by means of the belt *r* and the pulley *s*.

The feed of the sand is effected as follows: Dried sand is put in the reservoir C, at the inclined mouth of which a coarse sieve is secured, which prevents any small stones from entering the apparatus. At the lower part of the reservoir C there is an opening *n* of suitable size through which the sand escapes, falling upon the inclined sieve *o*. This sieve is shaken by means of the strap *p* on the eccentric disk *p'* on shaft *g'*. The sand falling through this sieve is conducted by the angular bottom of the sand-distributer toward the left and right and passes through the tubes *q q* into the sand-distributing apparatus *b*. By means of a slide arranged before the opening *n* the feed of the sand can be regulated.

The advance of the molds on the bridge *e e* is effected by means of the feeder *f*, which is connected in any suitable manner, direct or indirect, with the extracting device of the press and receives its forward and backward motion from the same. The stroke of the feeder *f* is somewhat longer than the breadth of a mold. When the carrier has moved the first mold placed on at A through the distance of its own breadth in the direction of the rinsing-machine, a second mold is placed upon the carrier in the space resulting, which moves the first mold farther and takes the place of the same. The molds after passing through *b* are ready for use in the press.

What we claim, and desire to secure by Letters Patent of the United States, is—

An automatic machine for rinsing and dis-

tributing sand on molds for making bricks and artificial stone, consisting of a water rinsing apparatus, a sand-distributing apparatus, sand-reservoir, the bridge for the passage of the molds and the feeder for moving the molds throughout the entire machine substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two witnesses.

ROELOF VAN DEN BERG.
GERRIT JANSSEN.

Witnesses:

ALBERTUS ALOYSIUS JACOBUS VAN DER WORP,
CHARLES MARIE DE MARTINE TOE LAER.