

No. 682,667.

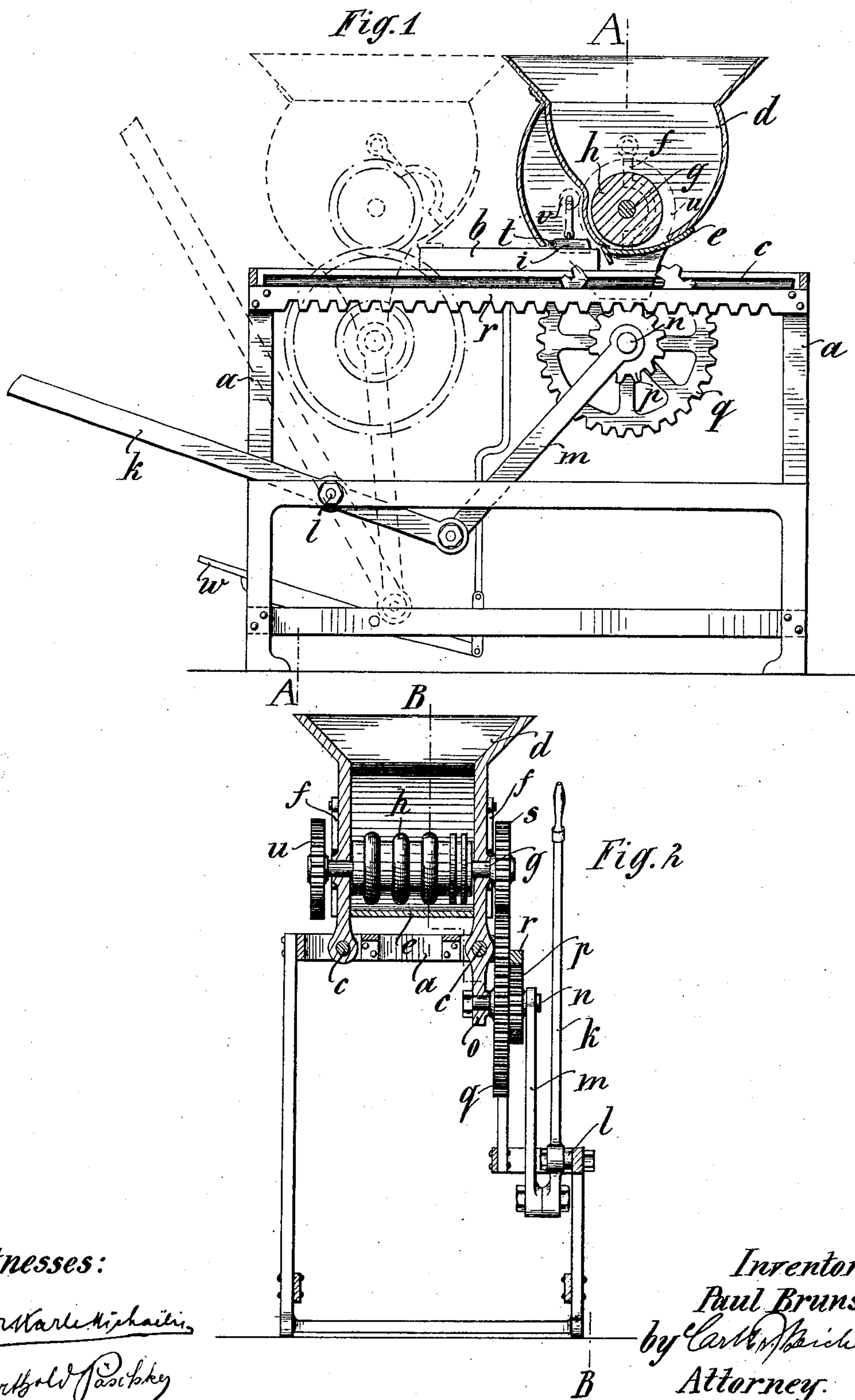
Patented Sept. 17, 1901.

P. BRUNS.

MACHINE FOR FORMING TILES.

(Application filed Sept. 25, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

PAUL BRUNS, OF HANOVER, GERMANY.

MACHINE FOR FORMING TILES.

SPECIFICATION forming part of Letters Patent No. 682,667, dated September 17, 1901.

Application filed September 25, 1900. Serial No. 31,043. (No model.)

To all whom it may concern:

Be it known that I, PAUL BRUNS, manufacturer, a citizen of the Kingdom of Prussia, and a resident of Hanover, Germany, (whose
5 post-office address is Grosse Pfahlstrasse 7^B, I,) have invented certain new and useful Improvements in Machines for Forming Tiles, of which the following is a specification.

The object of this invention is a mechanical forming-table for profiled tiles. By aid
10 of this forming-table tiles possessing great strength and homogeneousness are produced owing to the great pressure exerted upon the forming-tools and the raw material.

15 In the accompanying drawings, Figure 1 shows the forming-table cut lengthwise according to line B B of Fig. 2, Fig. 2 showing a cross-cut according to line A A of Fig. 1.

The frame *a* carries the form-chest *b*. Below this two rails *c* are arranged, which serve
20 as guides for the feeding-box *d*. The bottom of this feeding-box is formed by a shutter *e*, which is fastened to two arms *f*, linked to the side walls of the box, which carry the axles
25 *g* of a profiled roller *h*. This roller turns in the interior of the feeding-box and serves to drive the material into the forming-chest and to exert a shaping and pressing influence upon it. The motion of the feeding-box from
30 its initial position toward the forming-chest and above same is effected by aid of a hand-lever *k*, linked to the frame *a* by aid of a pin *l*. Its shorter arm is linked to a connecting-rod movably fastened to the pin *n*, project-
35 ing from an extension *o* of the feeding-box *d*. Therefore by lifting the hand-lever *k* from the horizontal to a vertical position the feeding-box is drawn over the forming-chest. At the same time the roller *h* and the rammer *i*
40 are rotated inside the feeding-box. The pin *n* carries two toothed wheels *p* and *q*, firmly connected with each other and running loose on their axles. Above the smaller one, *p*, a rack *r* is fastened to the frame *a*, and the
45 smaller pinion, gearing with this rack, is caused to rotate whenever it is drawn along the frame and communicates this rotation through the medium of the larger pinion *q*,

fastened to it, to another toothed wheel, *s*, fixed to the axle of the roller *h*. Therefore
50 by pulling the feeding-box by aid of the hand-lever *k* forward and backward the roller *h* is caused to rotate inside the feeding-box. At the same time the roller by aid of a pinion-gear *u v* causes the rammer *i* to oscillate about
55 a horizontal pivot *t*, fastened to the side walls of the feeding-box. The rammer is eccentrically connected with the pinion *v*, so that the rotating motion of the latter causes the rammer *i* to go up and down like a book-
60 cover, thus exerting at the same time a smoothing and a ramming action upon the material contained in the forming-chest. The hand-lever *k* exerting a strong downward pull upon the feeding-box and the forming-tool inside
65 the latter, the material is subjected to a strong pressure, favoring a great homogeneousness, and increased strength of the tiles produced. The shutter *e*, closing the feeding-box at the bottom, is arranged to open as soon as the
70 feeding-box passes over the forming-chest, the front edge of the shutter being held back by the latter. On the feeding-box being pushed back to its former position the shutter is closed automatically by aid of its own
75 weight. The formed tile is ejected from the forming-chest by aid of a tread-lever device *w* of well-known construction.

I claim—

1. In a forming-table for profiled tiles and
80 the like the combination of a frame, rails being disposed in said frame, a forming-chest reposing on the frame between said rails, a feeding-box slidable on said rails, a pin fastened to an extension of said feeding-box, a
85 lever fastened to the side of said frame, a connecting-rod linked on one side to said lever and on the other side to said pin, a profiled roller, a rammer arranged inside the feeding-box, gearing for operating same, and
90 a rack fastened to the frame, substantially as shown and described.

2. In a forming-table for tiles and the like the combination with the feeding-box, the roller and rammer inside said box and the
95 pin fastened to the extension of said box, of

two pinions fastened to each other and running loose on said pin, a rack fastened to the frame of said table, engaging one of the pinions, another pinion fastened to the axle of
5 said roller and engaging the second pinion, a gear fastened to the other end of the roller-axle, a pinion gearing therein, a rod pivoted eccentrically to said pinion and carrying the

rammer, substantially as hereinbefore shown and described. 10

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

PAUL BRUNS.

Witnesses:

WILHELM MUNDHENKE,
ERNST WAGNER.