

UNITED STATES PATENT OFFICE.

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MODELING-MACHINE.

999,270.

Specification of Letters Patent.

Patented Aug. 1, 1911.

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To all whom it may concern:

Be it known that I, WILHELM SPILLER, a subject of the King of Prussia and Emperor of Germany, residing at 29 Bamberger-strasse, Berlin, in the Kingdom of Prussia and Empire of Germany, have invented a new and useful Improved Modeling-Machine, of which the following is a specification.

10 This invention relates to a machine for the forming of toy and teaching models out of plastic material such as plaster by means of formers. The invention is devised especially for producing these goods for
15 games and for school purposes, and enables the operator to produce by means of a few formers a large variety of round, polygonal and flat models, which are especially valuable for technical and other higher educa-
20 tion school purposes. The plastic material is placed either upon a rotating or a fixed shaft, or upon a flat metal plate and is then shaped by means of a former.

The invention comprises the features
25 hereinafter set forth, and is illustrated in the accompanying drawing in three figures as follows:

Figure 1 shows a front elevation. Fig. 2 a side elevation, the former being vertical.
30 Fig. 3 a section on the line A—A of Fig. 1, the former being placed inclined.

Upon the bed plate 1 are secured side supports 2 in which at the top the shaft 4 is supported. The shaft possesses at one end
35 a dividing disk 5 with crank 6. There is also provided a fixing device 7 engaging in perforations of the said disk, by means of which device the shaft can be fixed after a given turn. On the other side the shaft 4 is se-
40 cured against the side support 2 by means of a nut 8. This side support is pivoted on a hinge piece 9 so that when the nut 8 is released it folds down into the position indicated in dotted lines in Fig. 1, whereupon
45 the finished model can be withdrawn from the shaft 4. In order to facilitate this withdrawal, the shaft 4 is tapered toward the nut 8, whereas it on the other side possesses not a circular but a polygonal section in order
50 to hold the plastic mass more firmly during the operation.

The former 13 is fixed to the bar 11 of a former holder which is placed with its end plates 10 between bars 3 on the side supports.

55 The former holder can be adjusted in two

different positions. In the position indicated in Figs. 1 and 2, the former is vertical and the former holder can be pushed to and fro between bars 3. If during this to and fro movement the shaft 4 surrounded by the plastic mass be normally stationary, but
60 turned by a given amount between each stroke of the former, angular or polygonal bodies are produced of a form determined by the outline of the former.

In the position shown in Fig. 3, the former is placed inclined and the former holder is fixed by means of pins 12 engaging in recesses. If, therefore, the shaft 4 surrounded
65 with plastic material is continuously rotated by means of the handle 6, round bodies will be produced. The former holder does not need to be held fast in the position shown in Fig. 3, so that the operator has both hands
70 free, and moreover the sloping position of the former makes it possible to effect a still better removal of the plastic mass, which during the rotation is automatically pushed
75 up upon the former. The former 13 is attached to the bar 11 of the former holder by means of screws 15 which pass through slots 14. It can therefore be adjusted in its height according to the thickness of the
80 body to be formed.

If instead of round or polygonal bodies
85 by means of the present invention flat or profile bodies, such as cornices or the like, are to be formed, then beneath the former between the bars there is inserted a flat plate
90 16, upon which the plastic mass is placed, and upon which the flat model is formed by moving the former to and fro.

What I claim is:

1. In a forming machine adapted to produce solid bodies of given shape from plastic
95 materials, a supporting frame, a rotatable shaft, a fixed shaft support on said frame, a pivoted shaft support on said frame, vertical guide bars on said frame, a former holder adapted to slide between said bars, and an
100 adjustable former detachably secured to said former holder.

2. In a forming machine adapted to produce solid bodies of given shape from plastic
105 materials, a supporting frame, a tapering rotatable shaft, a fixed shaft support on said frame, a pivoted shaft support on said frame, vertical guide bars on said frame, a former holder adapted to slide between said
110 bars, and an angularly and vertically ad-

justable former detachably secured to said former holder.

3. In a forming machine adapted to produce solid bodies of given shape from plastic materials, a supporting frame, a tapering rotatable shaft, a fixed shaft support on said frame, a pivoted shaft support on said frame, vertical guide bars on said frame, a former holder adapted to slide between said bars, the plate 16 adapted to support the

plastic mass between the shaft supports, and an angularly and vertically adjustable former detachably secured to said former holder.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM SPILLER.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."