

No. 763,817.

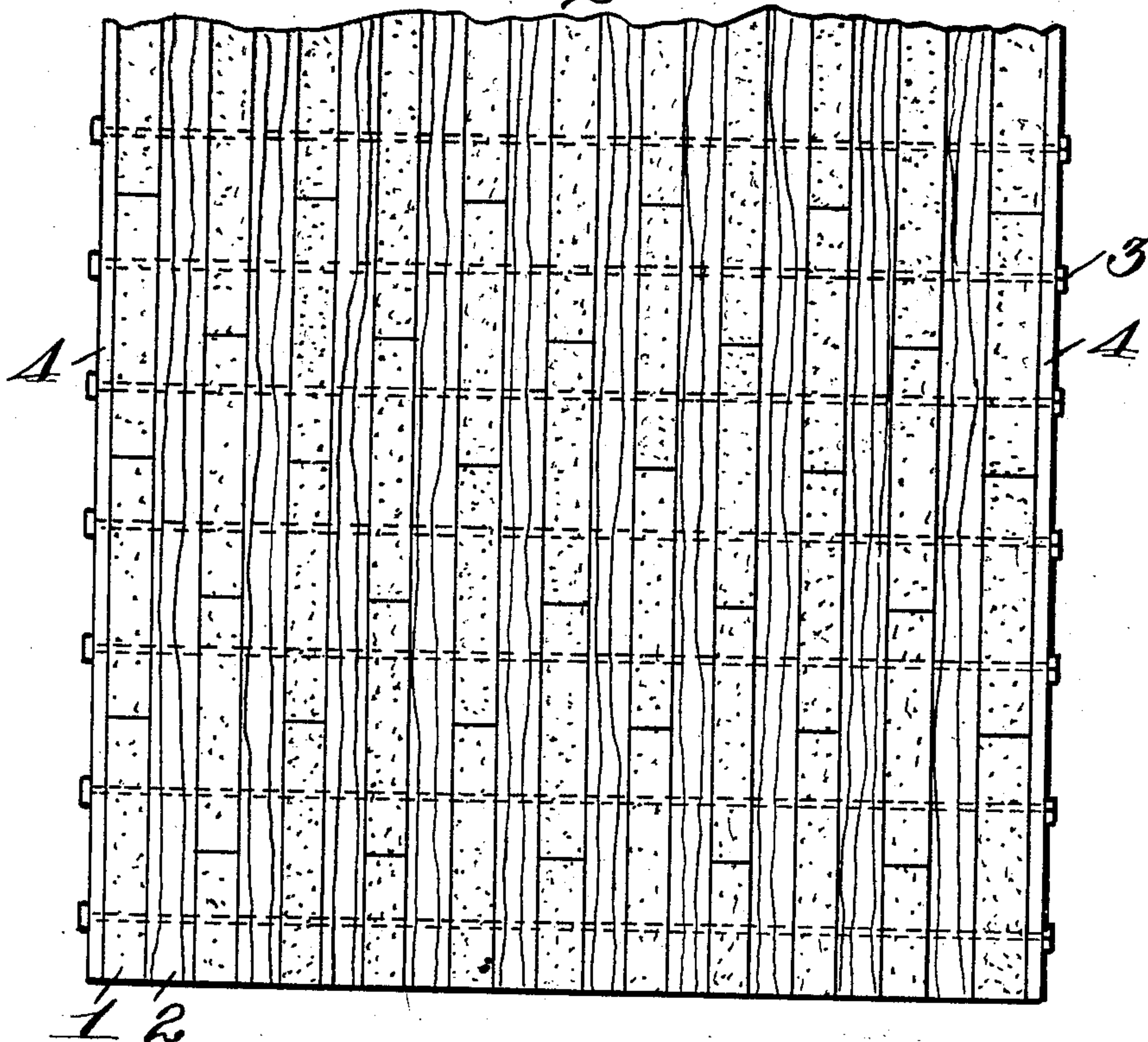
PATENTED JUNE 28, 1904.

S. R. WAGG.  
BED PLATE FOR BEATING ENGINES.

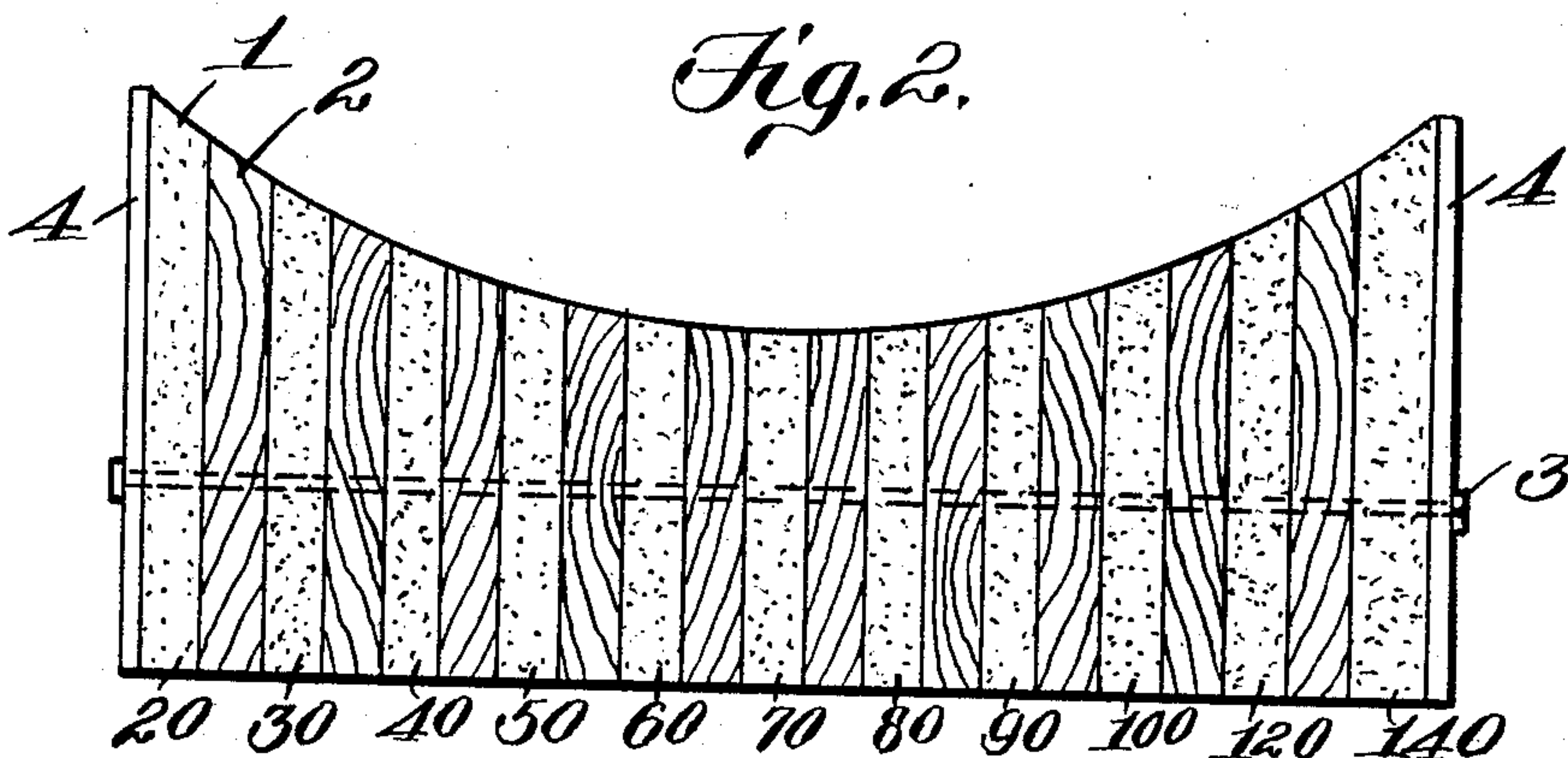
APPLICATION FILED JULY 21, 1903.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## BED-PLATE FOR BEATING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 763,817, dated June 28, 1904.

Application filed July 21, 1903. Serial No. 166,481. (No model.)

*To all whom it may concern:*

Be it known that I, SOLOMON R. WAGG, a citizen of the United States, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented new and useful Improvements in Bed-Plates for Beating-Engines, of which the following is a specification.

My invention relates to a novel construction of bed-plate for beating or Holland engines, and has for its object to provide a bed-plate composed of alternate slabs or blocks of stone and a softer material and to provide a novel means for securing the parts composing the bed-plate together as a rigid structure.

In order that my invention may be thoroughly understood, I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a plan view of a bed-plate constructed according to my invention, and Fig. 2 is an end elevation of the same.

Referring now to the drawings, 1 indicates slabs or bars of stone, preferably artificial stone, such as carborundum, but natural stone may be employed, and 2 indicates corresponding slabs or bars of a material softer than stone, such as wood, which are interposed between the stone slabs.

As illustrated by Fig. 2, the respective slabs of stone and wood are of successively increasing height from each side of the center, so as to provide a curvilinear formation of the upper working surface of the bed-plate.

The ordinary bed-plate of a Holland engine is from four and one-half to five feet long, and it has been found in practice impracticable to manufacture stone slabs this length. Accordingly the stone slabs 1 are made in lengths of about ten inches and, as shown by Fig. 1, they are arranged end to end in such manner that the various rows of stone slabs will break joints with each other. The interposed slabs of wood or other material 2 which are employed can of course be made as integral structures to extend from end to end of the plate. The various slabs are provided with bolt-holes, preferably two bolt-holes being arranged in each stone section, and bolts 3 are passed transversely through all of the slabs, as indicated by dotted lines in Fig. 2,

said bolts passing through metal plates 4, arranged at each side of the bed-plate and extending from end to end thereof, so that all of the slabs may be united firmly together. In place of wood slabs 2 interposed between the stone slabs 1 I may employ canvas or, in fact, any material softer than stone which will permit the stone slabs to be clamped firmly by the bolts 3 without danger of breaking. This softer material will also wear away quicker than the stone and will thus tend to leave cutting edges of stone exposed to the action of the beating-roll. I find it desirable to employ stone slabs having different degrees of coarseness. Thus beginning at the left of the plate, as shown in Fig. 2, I employ a stone slab of No. 20 grit, which is relatively coarse. The next slab, as indicated by the numeral thereon, will be of No. 30 grit, the next of No. 40, and so on to the opposite side of the bed-plate, where the fineness of the grit decreasing in the proportion indicated the slab at this side will be of No. 140 grit, which is relatively very fine as compared with No. 20 grit. Such an arrangement gives a very superior result in the paper produced over paper that has been treated in an engine the bed-plate of which is all of one grit, as the coarser stone No. 20 will operate to tear the long stock, while the finer stone up to 140 will impart a finish or polish to the stock which is a very essential element in the production of fine paper.

It will be apparent that I can vary the structure of this bed-plate in certain particulars without departing from the spirit of my invention or affecting the working of the plate. Thus I may substitute oak-wood boards for the outside metal clamping-plates. I may omit the soft material interposed between the stone slabs. In place of bolts I may place the stone slabs in an iron box or frame. I therefore do not wish to limit myself to precise details of construction, except in so far as indicated in the claims.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bed-plate for beating-engines, comprising a series of slabs of stone with a softer

material interposed between the slabs, and the whole bolted together to form a rigid structure.

2. A bed-plate for beating-engines, comprising metal side plates and a series of slabs of stone with softer material interposed between the slabs located between said metal plates, and the whole clamped together to form a rigid structure.

10 3. A bed-plate for beating-engines, comprising a series of slabs of stone of successively less degrees of coarseness from one side of the plate to the other.

4. A bed-plate for beating-engines, comprising a series of slabs of stone arranged end to end in different rows in such manner that the slabs of one row will break joints with the slabs of the adjacent row, the whole being clamped together to form a rigid structure.

20 5. A bed-plate for beating-engines, com-

prising a series of slabs of stone arranged end to end in different rows in such manner that the slabs of one row will break joints with the slabs of the adjacent row, and slabs of a material softer than stone interposed between 25 the various rows of stone slabs.

6. A bed-plate for beating-engines, comprising a series of slabs of stone, and a series of strips or slabs of wood interposed between the stone slabs. 30

7. A bed-plate for beating-engines, comprising a series of slabs or blocks of stone clamped together to form a rigid structure.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 35

SOLOMON R. WAGG.

Witnesses:

GEO. H. PEERENBOOM,

P. L. SCHNELLER.