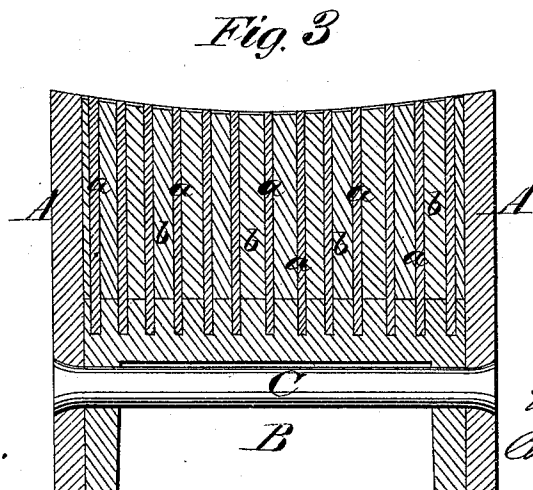
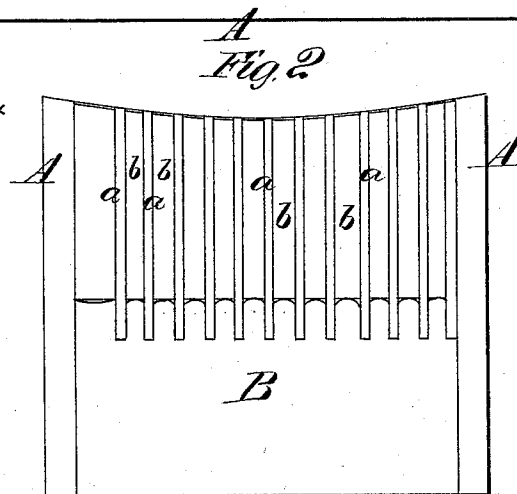
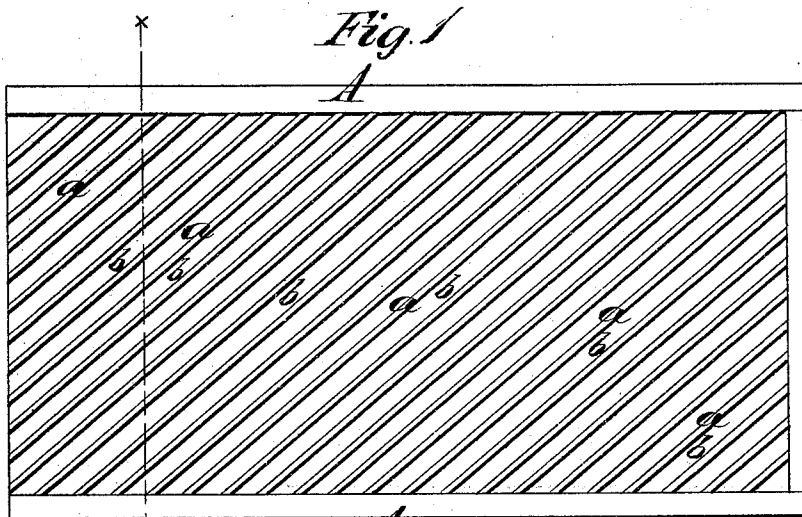


W. E. TAYLOR.

BED PLATE FOR PAPER MILL-ENGINE.

No. 178,205.

Patented May 30, 1876.



WITNESSES
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WILLIAM E. TAYLOR, OF FULTON, NEW YORK.

IMPROVEMENT IN BED-PLATES FOR PAPER-MILL ENGINES.

Specification forming part of Letters Patent No. **178,205**, dated May 30, 1876; application filed July 24, 1875.

To all whom it may concern:

Be it known that I, WILLIAM E. TAYLOR, of Fulton, in the county of Oswego and State of New York, have invented a new and valuable Improvement in Plates for Paper-Mill Engines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my plate. Fig. 2 is an end view of the same, and Fig. 3 is a transverse vertical sectional view thereof.

This invention has relation to the bed-plates against which the rotary cutters of a paper-pulp engine operate to reduce the rags; and the nature of my invention consists in the arrangement between two parallel "caps" or plates, of a suitable length to fit the roll, of a number of diagonal cutting-plates with intermediate filling-pieces of wood, all of which cutting-plates are parallel to each other and are secured to the base of the box by a process of casting, as will be fully understood from the following description.

For the purpose of more fully representing my invention and improvement, I have shown, in Fig. 1, the bed-plate applied in a paper-pulp engine with the cutting-roller removed. It will be observed that all of the cutting-plates *a* are diagonal to the sides or caps A A of the box inclosing them, and that these plates *a* are parallel to each other from one end to the other of said box, with thin wooden strips or filling *b* between them. The cutting-plates *a* are arranged with reference to the rotation of the cutting-roller, so that the rags will be worked toward the "midfeather," or central partition, which will cause the rags in the current to turn over and more thor-

oughly mix, and, at the same time, to "bank up," thus insuring the reduction of the rags to pulp in a much shorter time than hitherto.

It is necessary, in order to insure a perfect working of the "plate," that the blades *a* should be rigidly secured in their places, and to this end I cast the bed or foundation B about the lower portions of the said blades *a*, as shown in Figs. 2 and 3.

The side plates or caps A A are confined in their places by means of bolts C, which are passed through said blades and also through the flanges of the bed B.

The bed-plate or revolving cylinder is adjustable vertically upward or downward, to allow for the wear of the knives in the operation of the machine.

The metallic knives in the bed-plate would obviously be less liable to wear from friction than the wooden filling, which latter, it is found in practice, is worn away more rapidly than the knives, by the friction of the rags agitated by the beater, on the wooden filling, thus always leaving the knives to project above the wooden filling.

What I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a bed-plate for paper-pulp engines, consisting of the parallel plates A A, the diagonal cutting-plates *a*, secured to the base of the box, as described, and the intermediate filling-pieces of wood, all constructed and arranged for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM E. TAYLOR.

Witnesses:

J. G. BENEDICT,
P. F. CONGER.