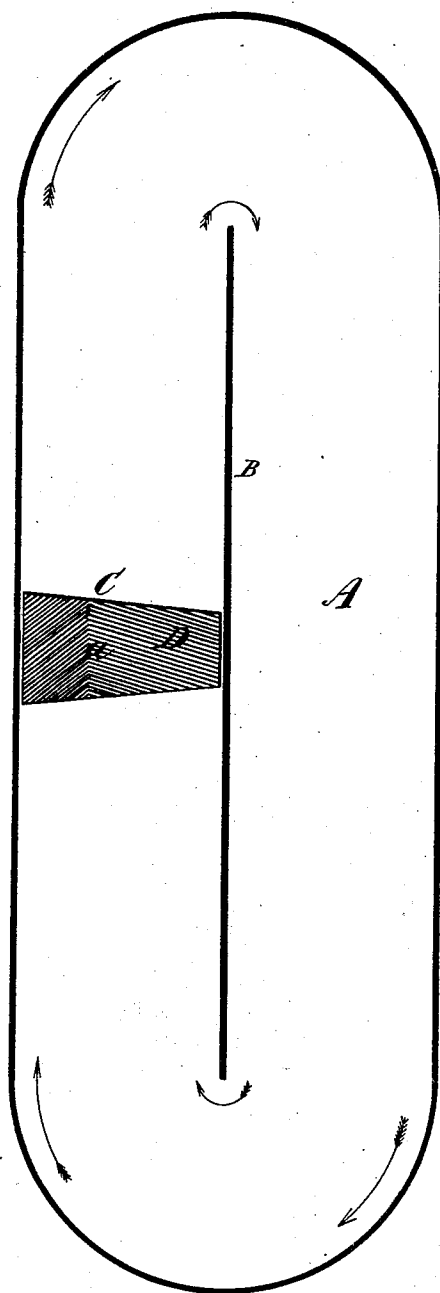


T. NUGENT.

Improvement in Paper-Pulp Engines.

No. 130,067.

Patented July 30, 1872.



Witnesses

O. Bradford
P. Edw. J. Eils

T. Nugent
Inventor.

D. P. Holloway & Co
Atty

UNITED STATES PATENT OFFICE.

THOMAS NUGENT, OF WHIPPANY, NEW JERSEY, ASSIGNOR OF ONE-HALF
OF HIS RIGHT TO DANIEL COGHLAN, OF SAME PLACE.

IMPROVEMENT IN PAPER-PULP ENGINES.

Specification forming part of Letters Patent No. 130,067, dated July 30, 1872.

Specification describing certain Improvements in Paper-Pulp Engines, invented by THOMAS NUGENT, residing at Whippany, in the county of Morris and State of New Jersey.

This invention relates to the bed-plate of paper-pulp engines; and my improvement consists, first, in gradually increasing the number of knives in the bed-plate from the end adjacent to the mid-fellow to the end abutting against the outer wall or rim of the tub, so as to obtain a gradually-increasing cutting-surface from the inner to the outer end of the bed-plate, to compensate in the difference in the number of times the stock in different parts of the tub passes over the bed-plate in a given time, the object being to produce pulp of uniform quality throughout the tub; second, in the employment of angular knives, the angle of which, or the line toward which they converge, is located nearest the outer wall of the tub, so that the increased velocity given to the stock by drawing it rapidly toward this line shall be made available in increasing the speed of the stock traveling near the wall or rim of the tub.

The annexed drawing represents a plan view of the tub of a paper-pulp engine containing my improved bed-plate.

The tub A is made of the ordinary form, partly divided longitudinally by the mid-fellow B. The bed-plate C extends across the space between the mid-fellow and the outer wall of the tub upon one side, as usual, the beater (not shown) being mounted above it. The bed-plate is made tapering, as shown, its narrow end being located in close proximity to the mid-fellow. The distance between the knives D of the bed-plate is the same at the

inner end that it is at the outer end, so that the number of them must gradually be increased from the narrower to the wider end of the bed-plate in order to cover it. The knives employed may be straight from one end to the other of the bed-plate; but I prefer to use knives arranged as shown in the drawing. Two series of straight knives may be employed to obtain this arrangement; or angular knives may be used. In either case the line *d*, toward which the knives converge, is to be located nearest the wider or outer end of the bed-plate, for the purpose already stated, its distance from such end being about one-third of the entire length of the plate.

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

1. A bed-plate, C, for paper-pulp engines, having an increasing number of knives from the end next to the mid-fellow to the end next to the rim of the tub, substantially as and for the purpose specified.

2. A bed-plate for paper-pulp engines with angular or elbowing knives converging toward a line, *d*, nearest its outer end, substantially as and for the purpose specified.

3. A tapering bed-plate, C, for paper-pulp engines, constructed with angular or elbowing knives D, which converge toward a line, *d*, nearest the outer end of the bed-plate, substantially as and for the purpose specified.

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

THOMAS NUGENT.

Witnesses:

WM. O. ADAMSON,
WILLIAM MAHER.