No. 665,868. Patented Jan. 15, 1901.

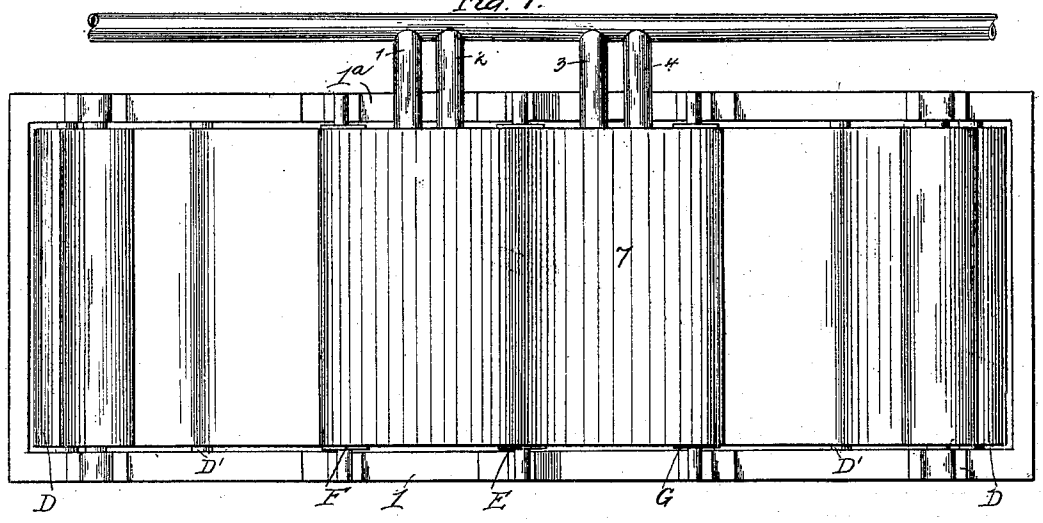
E. C. BRIGGS.

PAPER MAKING MACHINE.

(Application filed Mar. 30, 1900.)

(No Model.)

Fig. 1.



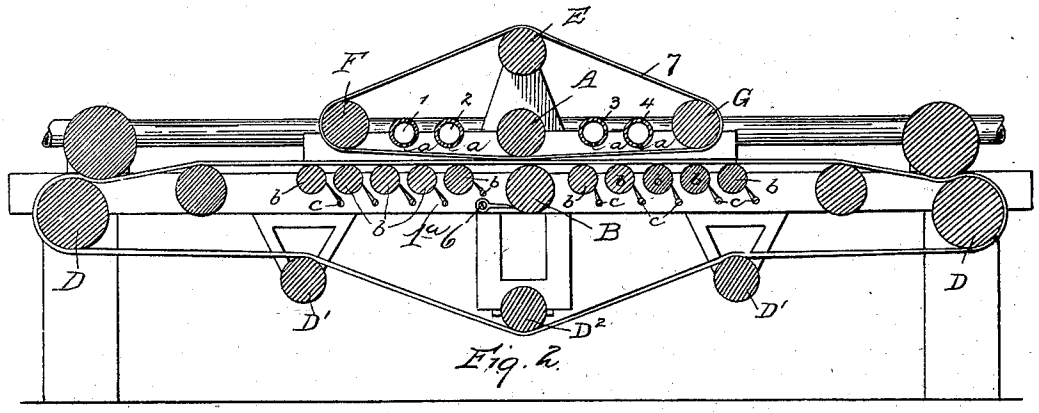
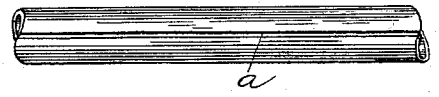


Fig. 2.

Fig. 3.



WITNESSES

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EUGENE C. BRIGGS, OF MONTAGUE, MASSACHUSETTS.

PAPER-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 665,868, dated January 15, 1901.

Application filed March 30, 1900. Serial No. 10,770. (No model.)

To all whom it may concern:

Be it known that I, EUGENE C. BRIGGS, a citizen of the United States, residing at Montague, Franklin county, Massachusetts, have invented certain new and useful Improvements in Paper-Making Machines, of which the following is a specification.

My invention relates to improvements in the means for separating the paper-pulp from the water which holds it in suspension when first it passes onto the endless wire-gauze apron in general use on Fourdrinier paper-machines.

The object of my invention is to facilitate the operation and prolong the life of those parts of the mechanism which require to be frequently removed, as is the case with the endless wire-gauze apron, which in passing over the suction-boxes in general use is soon rendered unfit to perform its proper functions.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view, Fig. 2 a longitudinal section, and Fig. 3 a detail of the blast-pipe.

In the drawings the numeral 1^a represents a main or supporting frame, which is provided with the usual guiding and supporting rollers D D′ D^2, over which the ordinary endless wire-gauze apron passes. Above this apron I arrange a supplemental or auxiliary apron 7, constructed of wire-gauze, which passes over rollers E F G, driven in the ordinary or any desired manner. Intermediate of the rolls E and G, I place a roller A, which is nearer to the endless apron than the roller E and G, whereby as the endless auxiliary apron travels in the same direction as the main apron it gradually approaches the same, squeezing the water from the interposed layer of pulp, and then gradually recedes from it.

Beneath the main apron at the point when the pulp is most compressed I place a supporting-roller B, also a series of supporting-rollers *b b b*, &c., which serve as a perforated table to admit exit of the water, and provide scrapers or doctors *c c c*, &c., for cleaning said rollers.

Between the rollers A, F, and G, I place a plurality of blast-pipes 1 2 3 4, having slots *a* or perforations in their under sides, arranged to discharge a blast of air on the upper face of the auxiliary apron and through the auxiliary apron, pulp, and main apron for the purpose of forcing the water out of the pulp, these pipes being supplied with air in any desired manner.

Having thus described my invention, what I claim is—

1. In a paper-making machine, the combination with the endless wire apron, of an auxiliary apron above the same arranged to travel therewith, and a plurality of air-pipes arranged to deliver air-blasts on the inside face of said auxiliary apron, substantially as described.

2. In combination, the endless wire apron, an auxiliary apron above the same arranged to travel in the same direction therewith, central and end rollers for causing said auxiliary apron to first gradually approach and then gradually recede from said wire apron, blast-pipes for delivering air-blasts on the inside face of said auxiliary apron between said rollers, a series of supporting-rollers beneath said wire apron, and scrapers or doctors coöperating with each of the supporting-rollers, substantially as described.

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

EUGENE C. BRIGGS.

Witnesses:
WILLIAM H. P. GILMORE,
HORACE BURNHAM.