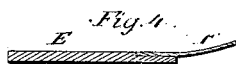
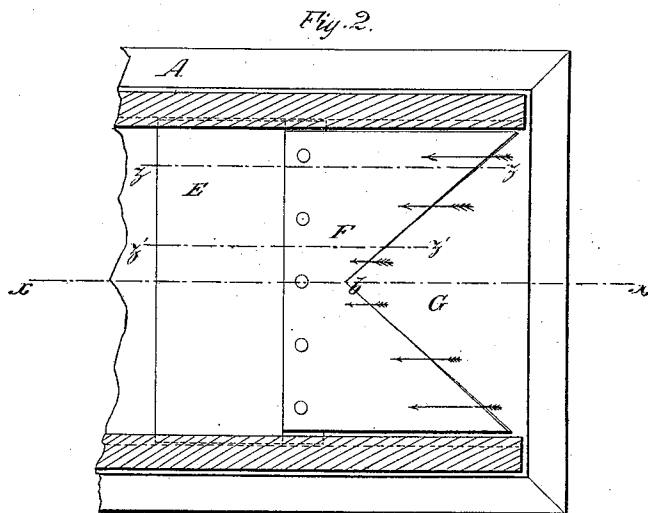
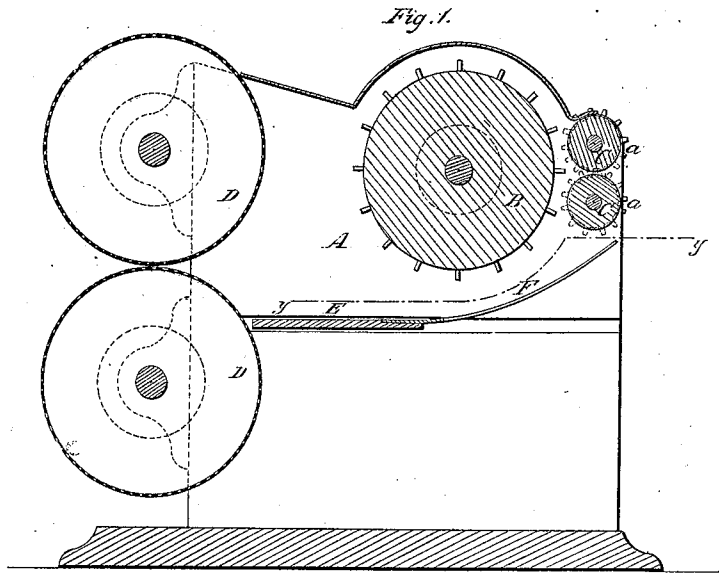


W. Fuzzard.
Feed for Machines for Making Wadding.
N^o 43,845. Patented Aug. 16, 1864.



Witnesses.
Edw. Topliff
Henry Morris

Inventor.
William Fuzzard
per Mann & Co
attorneys

UNITED STATES PATENT OFFICE.

WILLIAM FUZZARD, OF MALDEN, MASSACHUSETTS.

IMPROVEMENT IN THE FEED MECHANIS OF BATTING-MACHINES.

Specification forming part of Letters Patent No. 43,845, dated August 16, 1864.

To all whom it may concern :

Be it known that I, WILLIAM FUZZARD, of Malden, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in the Feeding Mechanism of Bating, Lapping, and Similar Machinery for Forming Fibrous Sheets; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *xx*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *yy*, Fig. 1. Figs. 3 and 4 are detached longitudinal sections of the draft-plate, taken, respectively, in the lines *zzz'*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and useful improvement in that class of machinery in which fibrous materials are fed to rollers in a loose, light state, for the formation of filmy sheets, such, for instance, as "laps" in the manufacture of cotton into textile fabrics, and "bating" used in the making of garments, and for various other purposes. Machines for this purpose are composed of a rapidly-revolving cylinder, most generally toothed, two feed-rollers for delivering the material to said cylinder, and two wire-cloth drums, or one drum and an endless belt, to receive the material from the cylinder and compress it into a filmy sheet, lap, or bat.

The great difficulty attending the operation of this class of machines has been the want of a uniform feeding of the material to the drums, so that the former will be evenly distributed over them, and the sheet, lap, or bat be of an uniform thickness throughout its entire width. This difficulty is occasioned by the blast produced by the revolution of the cylinder, which takes the material from the feed-rollers, being retarded at the sides of the case by friction, causing the blast at the center of the case to be stronger, the latter thereby throwing an excess of the material at the central part of the compressing drum or drums, and an uneven sheet is the result.

My invention consists in a novel construction of the draft-board underneath the feed-

rollers and cylinder, whereby a strong blast is obtained at each side of the case of the machine sufficient to compensate for the retardation by friction, and thereby insure an even discharge upon or to the compressing drum or drums.

A represents a case or box in which a cylinder, B, is placed transversely, and provided with teeth at its periphery. C C are two feed-rollers which are placed one over the other in the same axial plane, and provided at one end with gears *a*, which work or mesh into each other. D D are two wire-gauze drums, which are also placed one over the other, the "bite" of the latter being about in a horizontal plane with the lower end of the cylinder B. E is a horizontal partition-board placed in the case A a short distance below the cylinder B, and F is what I term a "draft board" or "plate," which is connected to the outer end of the board E, and is slightly curved upward toward the lower feed-roller, C, as shown clearly in Fig. 1. This draft-plate is cut out so as to leave a V-shaped recess, G, (shown clearly in Fig. 2,) the angle *b* of the recess being in a line central with the plate, and extending more or less inward, as may be required. In the ordinary machines this draft board or plate is not thus recessed or cut out at its outer end, but extends entirely across the case at right angles thereto, forming a draft-chamber underneath the cylinder B and rollers C C, of equal capacity throughout. The revolution of the cylinder B consequently will produce a blast of equal strength throughout its entire length directly at the cylinder; but the friction produced by the contact of the wind with the sides of the case causes the blast a short distance from the cylinder to be strongest at the center of the case, and the consequence is that the fibrous substance which is fed in between the rollers C C and taken therefrom by the teeth of the cylinder B will be discharged in excess at the centers of the drums D D.

By my invention I diminish the strength of the blast at the center of the draft-chamber by means of the V-shaped recess G, which causes the draft-chamber to gradually increase in length from its center toward each side of the case, and as the blast increases proportionally to the length of the draft-chamber, retardation by friction at the sides of the case is fully compensated for.

I would remark that I do not confine myself to the precise form of the recess G, for its sides may be straight or curved, but the straight sides will probably be employed; neither do I confine myself to the precise depth or length of recess, for that may vary to suit circumstances, and plates with recesses of different lengths kept on hand, so that any one of them may be used as required.

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

The employment or use, in machines for forming fibrous sheets of a draft-board or draft-plate provided with a recess of V shape or an equivalent form, to increase the length of the draft-chamber from a central line outward toward each side, substantially as and for the purpose herein set forth.

WILLIAM FUZZARD.

Witnesses:

JAMES HATCH,
B. G. HILL.