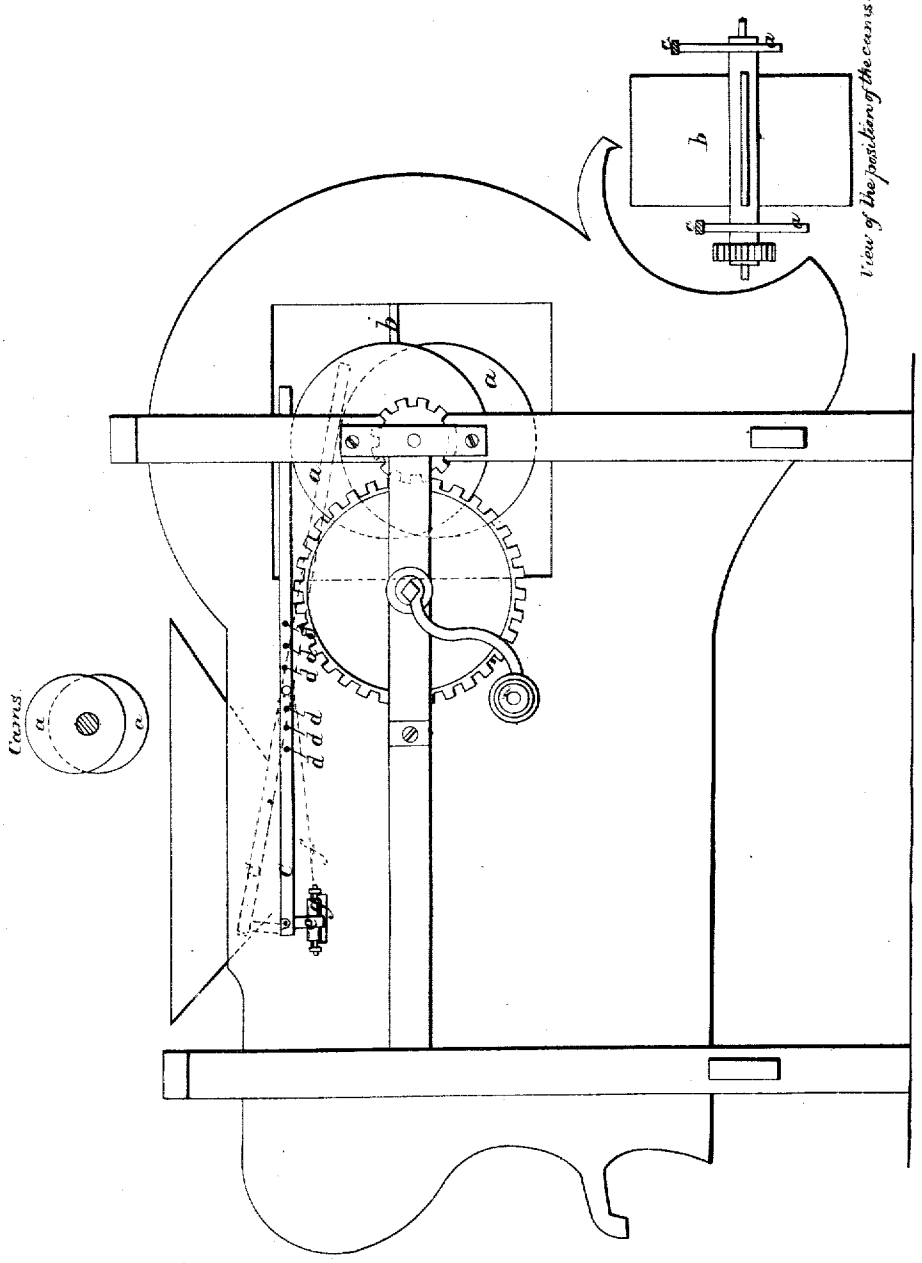
6891X

S. Fitch.

Grain Fanning Mill.

Patented Jan. 6, 1832.



May 26. 1832

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Thomas French Ithica N.Y.

Letters Patent

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Thomas French himself of said Improvement is the art of Paper Making called the Lettering Machine.

Be it known that I Thomas French of the Village of Ithica County of Tompkins and State of New York have invented a new and useful Improvement in the art of Manufacturing Paper which I have designated by the name of the Lettering Machine the use and object of which are to separate the knots & dirt from the pulp or stuff of the rags are ground & before the stuff passes from the reservoir which is denominated the stuff Chest into the Vat from which it is moulded by hand or by machine with paper which will obviate the necessity & labour of picking the knots by hand as they have become very much done in the process of finishing and that the following is a full and exact description of the machine as invented by me viz.

A Cylinder 16 inches in Diameter and 14 inches high (respectively) in the annexed drawing formed of sheet copper or brass from one eighth to one sixteenth of an inch thick with Screws (A B) or Independently thereof either in the or three Circles as represented in the draft or Extending the whole length of the Cylinder except a rim around the top and bottom about ½ of an inch upon & an inside rim one & ½ inch from the same Perforated with small holes to admit the fine pulp & escape & retain the knots and dirt within. The Cylinder is set with mahogany or other hard wood to fit the Cylinder as before described and which has a head or covering also of wood to fit close to the Cylinder or brass with the Screws as before described. The wood or rim may be made square or hexagon (six sides) may be used arranged as a Cylinder from or in a square or octagon (eight sides) figure with grooves upon the sides. The Cylinder is a number of boxes or compartments (twelve

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represented by (D) attached to (B) and playing upon the guiding rods (C C) which extend in each side of the piston through holes in the arms of the dasher S are made fast to the bottom and top of the box which encloses the Cylinder the piston rod is guided by a cross piece (F) sliding on the guiding rods and joined to a connecting rod at joint (E) by which it is attached to crank (A) on the main shaft driven by ordinary and appropriate machinery or gearing that will give to the dasher from four hundred to forty strokes or working upon a down in each minute. —

By this rapid working of the dasher the fruit pulp is forced thro the crevices or bars in the sides of the Cylinder while the hard kernels dirt and imperfectly ground pulp are retained therein and prevented from escaping with the pulp and are retained at such time requires the cock a faucet or gate in the bottom of the Cylinder.

The dasher plays within half an inch of the sides of the Cylinder and from about half an inch of the bottom & within 4 or 5 inches of the top. The machine is to be placed at a proper height and distance between the skeff chest and the Vat or tunne directly over the Vat at most convenient. The pulp is conveyed over the top of the Cylinder by a conductor of proper size & shape for the required quantity for a hand or machine Vat which may be used

The Cylinder is enclosed with a close square box having a cover for convenience which catches and retains the pulp as it is forced through the crevices and from which it is conveyed by a conductor at one side into the Vat. The foregoing is a description and illustration of the Pulping Machines for operating the Patent Cask Pulp Mill Mace and supplying a machine Vat which works the stuff best by the Engraved It is propelled from a convenient shaft power with which it shall be connected with the machinery which operates the Emptying machine and requires about the fifth part of a one horse power. If the Cylinder is made of sufficient strength to prevent the crevices or bars yielding to the force of the dasher in forcing the pulp through the Pulping Machine will work with the same

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of picking over the finer paper by hand in the usual manner and thus save a very great deal of labour & expense in finishing. It will also greatly improve the quality of paper made by machinery as it throws the stuff into the Vat in an agitated state in which state the fibres are drawn upon the Cylinder instead of lengthwise.

The surface is also much smoother and the injury sustained, and the holes made in the sheet in picking with knives is prevented.

Witnesses
Eleazer Mack
C. T. Woodruffe

Thomas French

Exd.

1035 w.D.