N. Hebard.

Pulp Strainer.

No. 1,441. Patented Dec. 27, 1839.

Fig: 1.

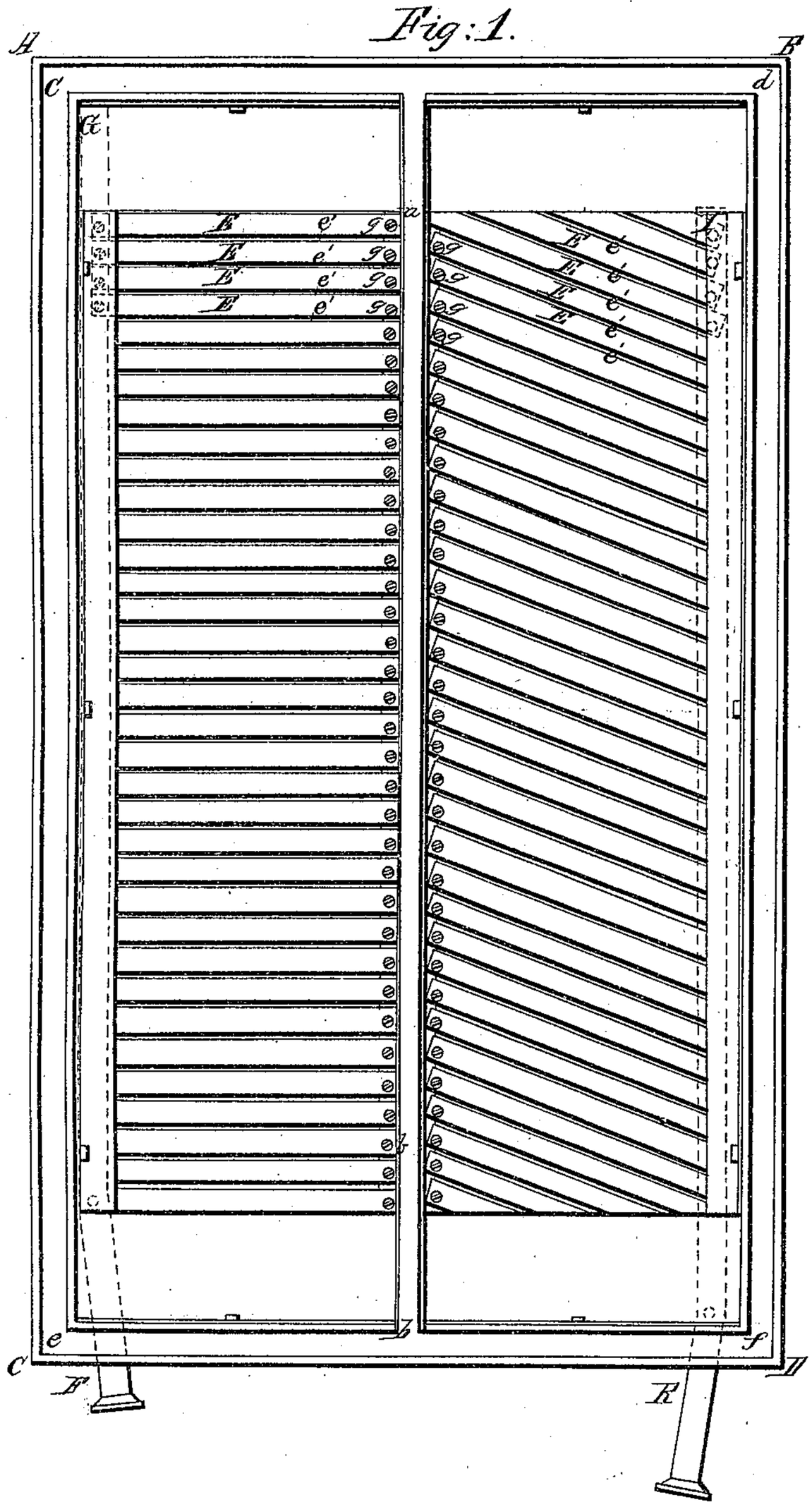
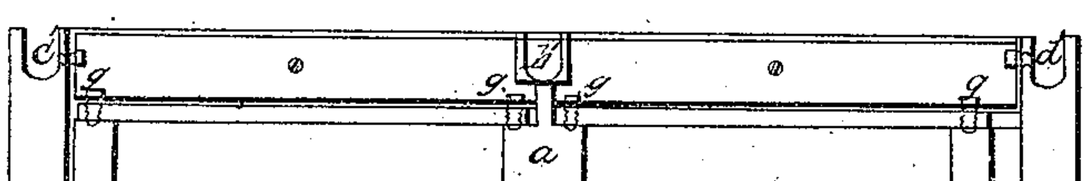


Fig: 2.



Sectional View

UNITED STATES PATENT OFFICE.

NATHANIEL HEBARD, OF DORCHESTER, MASSACHUSETTS.

MACHINE FOR DRESSING PULP OF WHICH PAPER IS MADE.

Specification of Letters Patent No. 1,441, dated December 27, 1839.

To all whom it may concern:

Be it known that I, NATHANIEL HEBARD, of Dorchester, Norfolk county, Massachusetts, have invented and applied to use a new and useful Improvement in Machinery for Dressing the Pulp or Substance Used in the Manufacture of Paper.

The said improvement, the principle thereof, and manner in which I have contemplated the application of the same by which it may be distinguished from other inventions, together with such parts or combinations I consider as new and claim to be my sole invention, I have herein described and set forth in manner following, to wit:

The drawings accompanying this description and referred to in the same by letters, are to be taken in connection with said description, thus forming my specification.

The ordinary pulp dresser used by the generality of paper fabricants, consists of a plate of metal, having any required number of long and very narrow slots cut through the same in parallel lines to each other. This plate being agitated by the machinery connected thereto, causes the finer portions of the pulp which is allowed to flow upon it, to pass downward between the slots while the coarser or those not perfectly reduced by previous operation or any extraneous matters are retained on the upper surface of the plate. It often happens that the slots become choked or filled with the coarse pulp or other matters. It is then necessary to remove the same by the interposition of a knife or other proper instrument. The frequent use of the knife soon wears the sides of the slots, thus increasing their width, and of course soon rendering the whole plate useless. The object of my invention is to increase or diminish at pleasure the width of the slots or spaces, so that by a simple operation they may be set to any required breadth.

Figures 1 and 2 represent my invention, the former being a top view and the latter a transverse section.

A B C D, Fig. 1, is a metallic frame the two ends of which are connected in the center by a cross bar *a b*, Fig. 1, and *a* Fig. 2. A groove *c d e f a b* extends around on the upper surface of the frame. This groove is represented by *c'*, *b'*, *d'*, in Fig. 2.

E, E, E, E, &c., are elongated bars or plates of metal placed at suitable distances *e'*, *e'*, *e'*, from each other. These bars are held down to the frame by screws *g*, *g*, *g*, as seen in the drawings or by any other convenient or suitable means. Their other ends are attached in a similar or other proper manner to sliding bars FG, HI, Fig. 1. Now it will be observed that when we push in or draw outward the side bars FG or HI the cross plates E, E, will be moved similar to the connecting joints of a common parallel ruler and the interstice spaces or slots *e*, *e*, *e*, will be diminished or enlarged accordingly. Thus if any hard substances or knotty portions of the pulp are caught between the plates or bars E, E, the spaces may at once be increased so as to easily remove the same. Consequently it will be observed that the width of the slots or spaces may be regulated for pulp of any consistence. In order to deliver the pulp in a proper manner on the upper surfaces of the bars E, E, it is received into a channel or groove *c d e f a b*. Figs. 1 and 2, on the top of the frame. The pulp is poured into or received by this channel in any proper or convenient manner and flows over the edges to the surface of the bars E, E, E, &c. Thus any sand or extraneous matter will generally settle in the grooves or channels while the lighter and finer parts of the pulp will only pass over the edges. The pulp dresser so constructed is to be agitated in a similar manner to those in common use in paper mills.

I claim as my invention and improvement—

1. The pulp dresser composed of parallel bars, E E, Figs. 1 and 2, operated by sliding bars FG, HI, in manner herein above explained.

2. I also claim the application of grooves or channels *c*, *d*, *e*, *f*, *a*, *b*, for the purposes before mentioned.

In testimony that the above is a true description of my said invention, I have hereto set my signature this thirtieth day of August in the year A. D. 1839.

NATHANIEL HEBARD.

Witnesses:
R. H. EDDY,
CALEB EDDY.