

(No Model.)

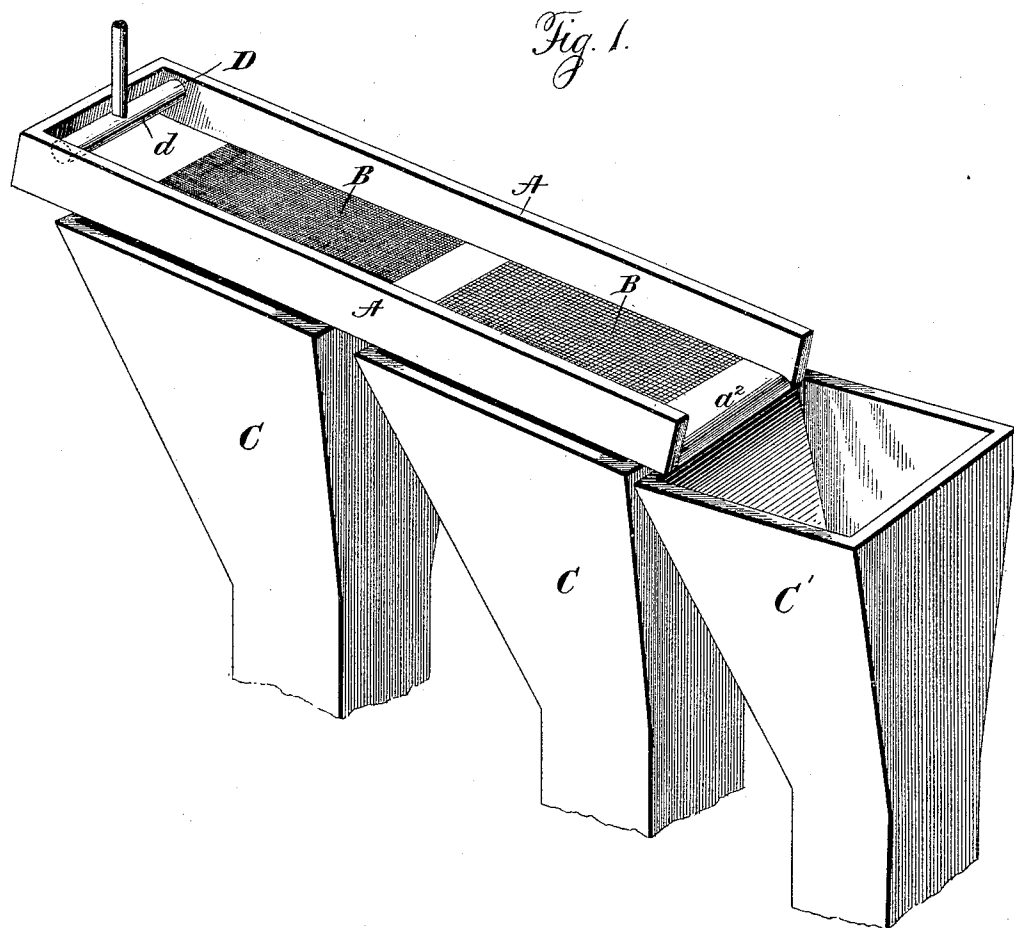
2 Sheets—Sheet 1.

H. C. HIGGINSON.

PROCESS OF MANUFACTURING WHITING.

No. 499,995.

Patented June 20, 1893.



Witnesses:

Jas. E. Hutchinson.

Henry C. Hazard.

Inventor.

Henry C. Higginson, by
Charles M. Russell, his Att'y

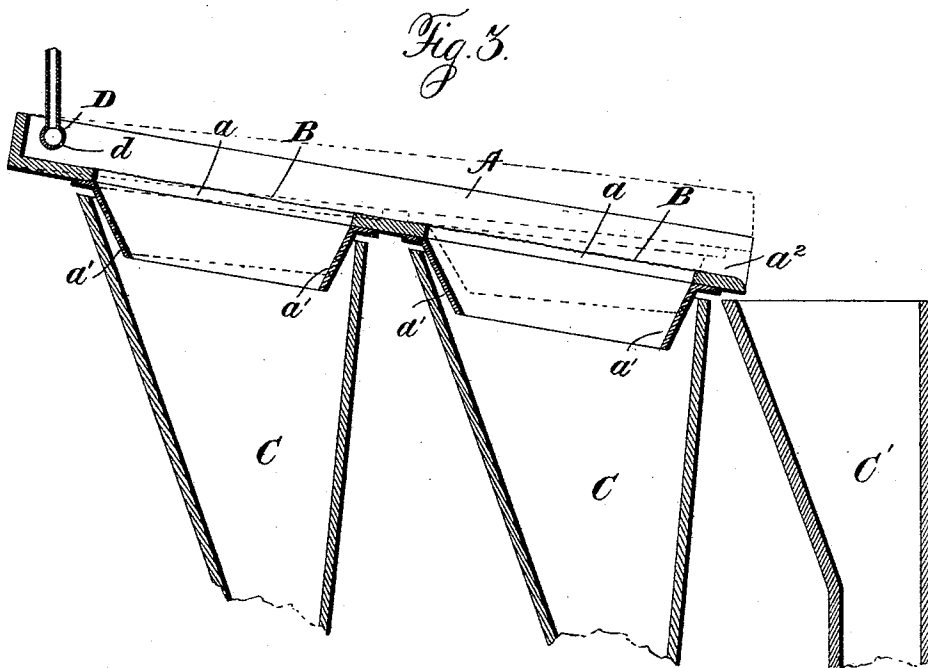
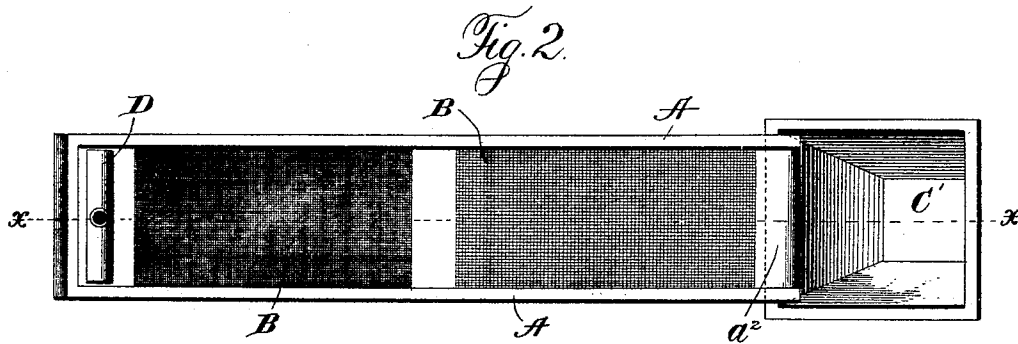
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

HENRY C. HIGGINSON, OF NEWBURG, NEW YORK.

PROCESS OF MANUFACTURING WHITING.

SPECIFICATION forming part of Letters Patent No. 499,995, dated June 20, 1893.

Application filed October 10, 1891. Serial No. 408,304. (No specimens.)

To all whom it may concern:

Be it known that I, HENRY C. HIGGINSON, of Newburg, in the county of Orange and State of New York, have invented certain new and useful Improvements in the Process of Manufacturing Whiting; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the apparatus, preferably employed, as arranged for use. Fig. 2 is a plan view of the same from the upper side, and Fig. 3 is a vertical section upon line *xx* of Fig. 2.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to readily and effectively separate whiting into two or more grades, and to such end my said invention consists in the method employed, substantially as and for the purpose hereinafter specified.

In the carrying out of my invention any desired form of mechanism may be employed, but for convenience of illustration I will describe the form preferably employed which, as shown in the annexed drawings, consists in part of a trough shaped chute A which has its ends suitably supported or suspended and is inclined longitudinally at such an angle as to cause a liquid with pulverized whiting in suspension in it to flow through it at a moderate velocity—and is arranged so that the degree of inclination may be varied at will.

Within the bottom of the chute A is provided two or more openings *a* and *a* which are separated by suitable intervals of imperforate material and each of such openings is covered by a screen of wire cloth or perforated metal B that has such diameter of opening or mesh as to enable it to pass a predetermined grade of whiting, the finest screen being at the upper end of said chute and the coarser screens arranged in regular order below the same.

Immediately below and surrounding each screened opening *a* is a guide composed of inwardly and downwardly inclining plates *a'* and *a'* and below the same is provided a hopper C that is adapted to receive material which falls through such opening and to convey the same into a suitable receptacle, while at the lower, open end *a*² of the chute A is another similar hopper C' that receives such material as passes over all of the screens and

falls from said chute end. The upper end of the chute A is inclosed, as shown, and within the same is provided a tube D that is arranged transversely, is connected with a reservoir or other source of supply of the material suspended in a liquid and along its front side has a slot *d* or a line of perforations which enable it to discharge the same in a sheet across the entire bottom of said chute.

As thus constructed and arranged, the apparatus operates as follows, viz:—The whiting suspended in water is permitted to discharge from the pipe D and falling upon the bottom of the chute, flows downward over the same. As said material passes over the first or finest screen, such particles as are sufficiently small pass through the meshes thereof and fall into the receptacles provided, while the remainder of said material flows downward to the next screen—which having a coarser mesh, permits of the downward passage of another grade, the process being repeated by each succeeding screen and the residue finally passing from the end of the chute A into the hopper C'. By changing the inclination of said chute, the velocity of the semi-liquid material over the screens may be increased or retarded until the complete separation of each grade from the mass is effected during its passage over the corresponding screen.

Having thus described my invention, what I claim is—

1. The process of separating whiting into grades which have different degrees of fineness, consisting first in grinding or pulverizing the material and then by means of water or other liquid which operates to hold the particles in suspension, causing the same to pass over a series of screens that have relatively increasing diameters of openings, substantially as and for the purpose set forth.

2. The process for separating whiting into grades having different degrees of fineness which consists in causing the same while suspended in liquid in a pulverized state to flow in a thin sheet or stream over a screen, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of October, 1891.

H. C. HIGGINSON.

Witnesses:

GEO. S. PRINDLE,
E. E. ROOSA.