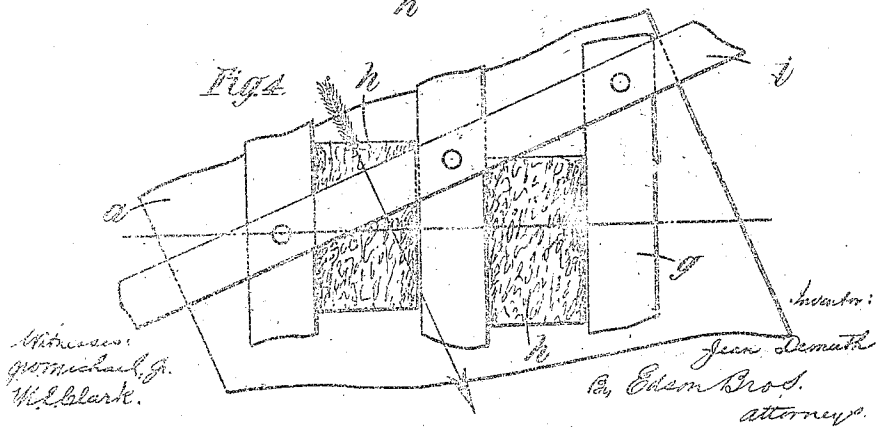
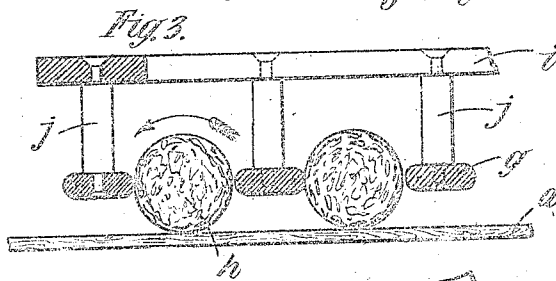
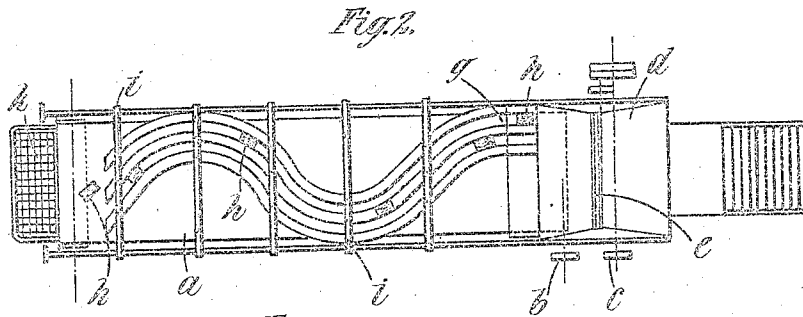
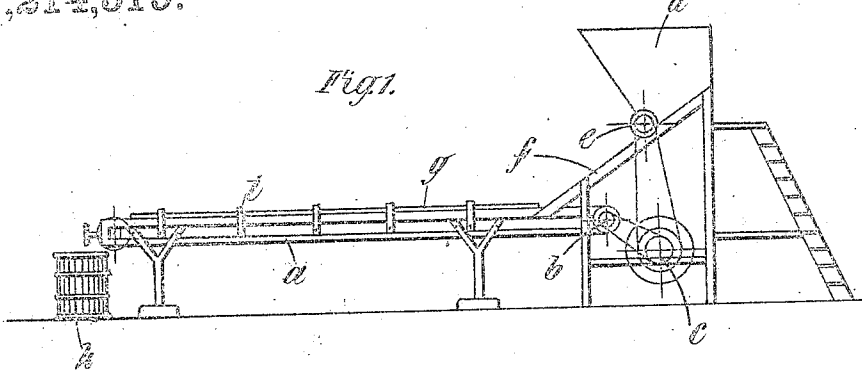


J. DEMUTH.
MACHINE FOR SORTING CORKS.
APPLICATION FILED FEB. 13, 1915.

1,214,519.

Patented Feb. 6, 1917.



UNITED STATES PATENT OFFICE.

JEAN DEMUTH, OF LE MUY, FRANCE.

MACHINE FOR SORTING CORKS.

1,214,519.

Specification of Letters Patent.

Patented Feb. 6, 1917.

Application filed February 12, 1915. Serial No. 7,937.

To all whom it may concern:

Be it known that I, JEAN DEMUTH, a citizen of the French Republic, residing at Le Muy, Var, in the Republic of France, have invented certain new and useful Improvements in Machines for Sorting Corks, of which the following is a specification.

In the manufacture of corks upon a wholesale scale a great deal of time is spent in sorting and classifying the various qualities and as these operations require personal judgment on the part of the staff, it is necessary to effect the same several times, allowing more experienced members of the staff to take charge of the last stages. It follows therefrom that the corks are handled many times before being classified and as the rate of examination is naturally limited by the time spent in examining each one, the individual output is very low.

The present invention has for its object to provide a machine for effecting the classification of the various kinds in one operation, facilitating the operator's task and realizing a much higher output.

In order that this invention may be well understood, a drawing is annexed to the present specification by way of example only, in which—

Figure 1 is an elevation of the machine constructed in accordance with the principle of the invention. Fig. 2 is plan of Fig. 1. Figs. 3 and 4 are detail views showing how the corks are guided and how they turn.

The principle of the invention is based upon the observation of the following fact:—When a cylindrical body is carried forward on a traveling band or the like and is displaced relatively to the direction of movement, it rotates about its own axis in the same direction as that in which it is displaced.

With a view to the rapid sorting of corks, they are passed in front of the workmen by means of a traveling band and in order that the whole of their parts shall be presented to the attention of the workman, their movement in the axial direction is interfered with by a lateral displacement thus causing them to rotate upon themselves once in one direction then in another according to the direction of their displacement.

A traveling band *a* of a known type generally in use, is suitably mounted and driven at *b* by a shaft *c* or by any means usually employed for such purpose.

At the end of the conveyer *a*, a hopper *d* is provided, into which are fed either mechanically or by hand the corks to be classified. This hopper *d* is provided with a distributor *e* driven from the shaft *c* which causes the corks to arrange themselves in the slots *f* of the inclined table and thence slide down onto the conveyer *a*.

In order to impart to the corks a rotatory movement, a certain number of bars *g* are provided the shape and dimensions of which are in accordance with the dimensions of the corks being classified; these bars are placed with intervals between them in line with the slots *f* so that the corks *h* are placed in contact with the conveyer *a* just between two bars *g*. The said bars *g* have a sinuous form so as to utilize the whole width of the conveyer band. They are maintained above the conveyer *a* without touching the same, at a distance determined by the diameter of the cork, by the cross-beams *i* located at suitable distances apart, and to which they are riveted by the pins *j* (Figs. 3 and 4).

The length of the conveyer band, the number of bars, the lesser or greater amplitude of their curvature, the speed of the conveyer, are functions within the province of the workmen in charge of the classification and are determined by practice, taking into account the dimensions of the corks and the qualities to differentiate.

At the end of the conveyer any kind of basket *k* receives the corks which have not been stopped in their movement.

The operation of the device is as follows:—The corks fed into the hopper *d* are placed by the distributor into the slots *f*, and from thence slide onto the conveyer band *a* between the bars *g* which cause them to move laterally by rotating upon themselves once in one direction then in another.

The workmen in charge of the classification are placed on either side of the conveyer band and take off gradually the qualities which they are told to stop on their passage, for instance, the first workman takes off all bad and wasted corks, the second one takes off the next inferior quality and so on right to the end of the conveyer where the best quality remains.

Referring to Figs. 3 and 4 it will be easily understood that the cork carried along by the conveyer *a* in the direction indicated by the arrow and maintained in a different di-

rejection by the bars *g*, moves on the said conveyor by rotating upon itself, in the direction indicated by the arrows in Fig. 3. The workmen see successively the whole surface of the rotating cork, without having to handle the corks for examining purposes, which results in a much higher output.

Experiments have been made and prove that it is easy to increase tenfold the output of the staff with less damaging of the goods. Moreover, the sorting is facilitated because the corks being placed in proximity to one another constitute for the eye of the workman a comparative basis which is very useful for the selection.

What I claim and desire to secure by Letters Patent of the United States is:—

1. A machine for facilitating the classification of corks comprising a moving surface with sinuous guides to deflect the cork transversely of the moving surface.

2. A machine for facilitating the classification of corks comprising a traveling band and means superposed thereon adapted to change the normal path of cylindrical bodies carried by said band, said means also serving to restrict the movement of the said bodies in two directions while guiding same in their axial movement.

3. A machine for facilitating the classification of corks comprising a traveling band and guide bars superposed on said band said guide bars being inclined to the direction of travel of said band and serving to restrict the movement of the corks in two directions while guiding it in its axial movement.

4. A machine for facilitating the classification of corks comprising a feed hopper, a traveling band, and guide bars superposed on said band and inclined to the direction of travel thereof, said guide bars serving to restrict the movement of the cork in two directions while guiding it in its axial move-

ment and serving also to impart a rotary movement to the cork first in one direction and then in the other.

5. A machine for facilitating the classification of cylindrical bodies comprising a moving surface, a series of sinuous guides superposed on said surface, a feed hopper and a distributor.

6. A machine for facilitating the classification of corks comprising a traveling band, a series of sinuous guide bars carried above said band at a distance determined by the diameters of the corks, bridge pieces to carry said guide bars and means to place the corks between said guide bars.

7. A machine for facilitating the classification of corks comprising in combination a conveyor, sinuous guides superposed on said conveyor, a feed hopper, a distributor, means for operating said conveyor and means for operating said distributor.

8. A machine for facilitating the classification of corks comprising in combination a conveyor band, a series of sinuous guide bars spaced apart, bridge pieces, distance pieces between said guide bars and said bridge pieces, a feed hopper, a gear driven distributor and gravity chutes leading to the sinuous guides.

9. A machine for facilitating the classification of corks comprising in combination a conveyor band, sinuous guides superposed on said band, cork distributor and interconnected mechanical means for operating said conveyor band and said cork distributor.

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

JEAN DEMUTH.

Witnesses:

FORTUNO NOEL,
AUGUSTE TELEGRINI.