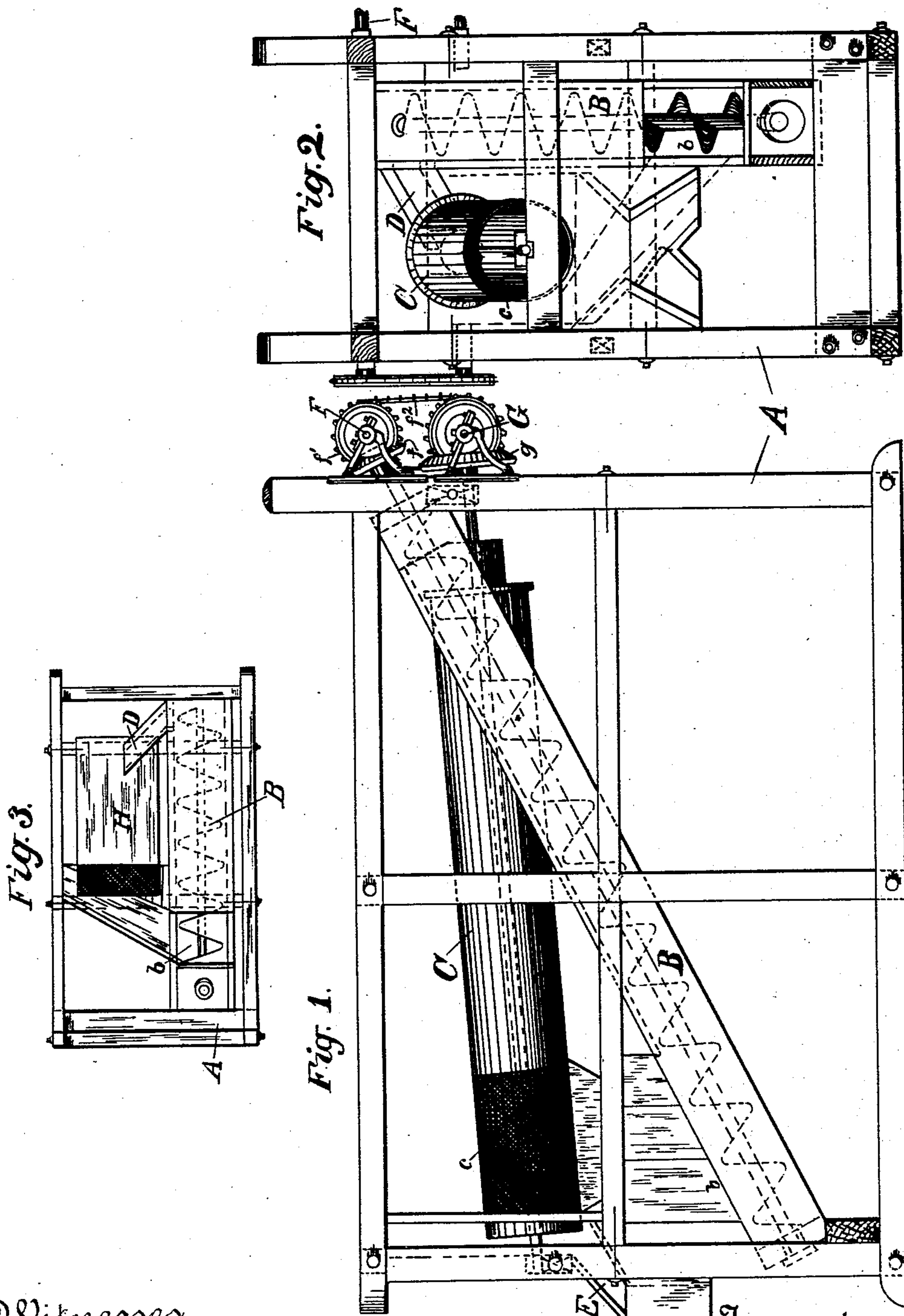


(No Model.)

R. W. JESSUP & F. H. WHEELAN.
POLISHING MACHINE.

No. 570,639.

Patented Nov. 3, 1896.



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ROBERT W. JESSUP, OF LOS ANGELES, AND FAIRFAX H. WHEELAN, OF SAN FRANCISCO, CALIFORNIA.

POLISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 570,639, dated November 3, 1896.

Application filed March 27, 1896. Serial No. 585,051. (No model.)

To all whom it may concern:

Be it known that we, ROBERT W. JESSUP, residing at Los Angeles, county of Los Angeles, and FAIRFAX H. WHEELAN, residing in the city and county of San Francisco, State of California, citizens of the United States, have invented an Improvement in Polishing-Machines; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to the class of machines adapted for the cleaning and polishing of such materials and products as beans and other leguminous seeds, oranges, and other fruit, walnuts, and other nuts; and it consists, essentially, in an inclined conveyer or elevator to which, at its lower end, the material is fed, together with any scouring or polishing material, such, for example, as sawdust, and an inclined reel or a screen with a reciprocating motion to which the whole material is delivered from the upper end of the conveyer, said reel or screen being so located with relation to the conveyer as to deliver the sawdust or other polishing material to the lower end of the conveyer to be used again, all of which we shall hereinafter fully explain.

The object of our invention is to provide a machine for polishing materials of the kind mentioned, and in which there shall be an extensive course or passage of the material during its subjection to the polishing action and a continuous round or cycle of the polishing material all effected automatically.

Referring to the accompanying drawings, Figure 1 is a side view of our polishing-machine. Fig. 2 is an end view of same. Fig. 3 is a view showing a modification.

A is a frame in which is mounted an inclined conveyer or elevator B, consisting of a suitable casing with a rotating spiral flange within it, as indicated.

The casing of the conveyer or elevator is open at its top at the lower end at *b*, whereby the material may be supplied to the conveyer or elevator at that point.

In the frame A above is mounted a screen in the form of a reel C, set at a suitable inclination to provide for the passage of the material through it by gravity, said reel hav-

ing a communication at its upper end with the upper end of the conveyer or elevator through suitable channels or spouts D.

The reel from its head end down to a point over the open lower end of the conveyer-casing is entirely inclosed or covered, and is impervious to the material, but at said point and from there to its lower end it is provided simply with the usual screen-covering *c*. From the lower end of the reel is a discharge-spout E, from which the polished material is received.

Suitable mechanism is employed to rotate the conveyer and the reel, said mechanism being indicated by the main shaft F and bevel-gearing *f* to operate the conveyer, the sprockets *f'* and chain *f*² to operate a counter-shaft G, which by means of bevel-gearing *g* operates the reel.

The operation of the machine is as follows: The material to be polished, such as beans or fruit of any kind or nuts, is supplied to the conveyer or elevator at its lower end, together with a suitable scouring or polishing material, such as sand or in practice sawdust. The materials thus supplied to the conveyer are elevated therein, and during their course a rubbing action takes place sufficient to polish the substances desired, which polishing effect is heightened by the inclination of the conveyer or elevator, resulting in increased resistance. At the upper end all the material is delivered into the reel or screen, where to a certain extent the rubbing action still goes on until, when the lower or screen portion *c* of the reel is reached, the sawdust or other polishing material drops out through the screen-covering of the reel and falls into the elevator or conveyer again, and is thus used over, the operation, as far as it is concerned, therefore being a continuous one. The polished material is delivered from the end of the reel through the discharge-spout. Thus an automatic machine is provided in which all the operations take place continuously.

Although we have heretofore described a reel as the means for carrying out the final operation and separating the polished from the polishing material, it is to be understood that this is but one form of screening table

or device for this purpose. We do not therefore confine ourselves to a reel, as we may, as shown in Fig. 3, use a shaking flat screen, such as H.

5 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a polishing-machine, the combination,
10 of an inclined conveyer adapted to receive the material at its lower end, and an inclined separator adapted to receive the material from the upper end of the conveyer, said separator constructed to discharge the polishing material from the screen into the receiving end of
15 the conveyer and to deliver the polished material separately.

2. A polishing-machine consisting of an inclined conveyer or elevator adapted to receive the materials at its lower end, an inclined
20 screen adapted to receive the materials from the upper end of the conveyer or elevator, and a means for discharging the polishing

material from the screen into the lower end of the conveyer or elevator, and for delivering the polished material separately. 25

3. A polishing-machine consisting of an inclined conveyer or elevator adapted to receive the materials at its lower end, an inclined receiver adapted to take the materials from the upper end of the conveyer or elevator, 30 said receiver being impervious to the material for a portion of its length and having at its lower end a screen portion adapted to discharge the polishing material into the lower end of the conveyer or elevator, and to deliver 35 the polished material separately.

In witness whereof we have hereunto set our hands.

ROBERT W. JESSUP.
FAIRFAX H. WHEELAN.

Witnesses:
H. J. LANG,
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