

Patented Jan., 19, 1875.

The diagram shows a mechanism with four links and four revolute joints. Link 1 is the fixed frame, represented by the ground symbol at the bottom. Link 2 is a crank of length \$a\$, pivoted to the frame at point \$O_2\$. Link 3 is a coupler link of length \$b\$, pivoted to Link 2 at point \$A\$ and to Link 4 at point \$B\$. Link 4 is a rocker of length \$c\$, pivoted to the frame at point \$O_4\$. The joints are revolute, indicated by the circular symbols at \$O_2\$, \$A\$, \$B\$, and \$O_4\$. The diagram is labeled with 'a', 'b', and 'c' for the link lengths, and 'N' for the joints.

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IMPROVEMENT IN APPARATUS FOR BRANDING AND COUNTING CORKS.

Specification forming part of Letters Patent No. **158,963**, dated January 19, 1875; application filed July 18, 1874.

To all whom it may concern:

Be it known that I, NOAH WILLIAM MITCHELL, of Southsea, in the county of Southampton, England, cork-cutter, have invented a new and Improved Apparatus for Branding and Counting Corks, of which the following is a specification:

This invention consists in constructing an apparatus for branding and counting corks, instead of having to brand and count such corks by hand as commonly practiced.

The following is an example of my said invention for branding and counting corks, reference being had to the illustrative sheet of drawings hereunto annexed.

Figure 1 is a plan of the branding and counting apparatus; Fig. 2, an elevation of the same, partly in section; Fig. 3, a front view of the counting apparatus.

A is a table, on which is fixed the standard B. In this table is inserted the brand C, which is kept at a suitable heat by means of a gas-jet, D, or other means. E is a guide, in which the corks are placed. F is a frame, which oscillates with the spindle G on the standard B. On this spindle are keyed a pulley, H, and a cog-wheel, J, gearing with a pinion, J', keyed on the other spindle, K, on which is fixed a milled pulley, L. A rotary motion is given by a treadle, or otherwise, to the pulley H, which is transmitted to the pulley L by the wheel J and pinion J'. P is a chute, into which the corks fall after having been branded and counted. Q is a support, upon which the frame F rests in order that the pulley L shall not come in contact with the brand C. M is the counting apparatus, where the corks, after having passed under the pulley L, are registered. This apparatus consists of a metallic casing, *a*, attached to the standard B. In this casing is suitably arranged a series of wheels and pinions, *b b' b''*, the number of revolutions made by each being shown on dials *d* by the hands *c*. The dial of the wheel *b* marks the single corks, and that of the wheel *b'* the casts of twenty-four corks, and that of *b''* the grosses. The wheel *b* is set in motion by the pawl N' of the lever N. One end, *o*, of this lever rests on the frame F, Fig. 2.

The following is the manner by which corks may be branded and counted by means of the above-described apparatus:

A cork is placed on the guide E, and is carried over the brand C by the milled pulley L, as shown by dotted lines at Fig. 2. This pulley being raised by the cork to L', the other end of the frame F is lowered to F', and the lever N of the counter following it in its motion, and the end *o* assuming the position O'. When the cork has passed underneath the pulley L, and fallen down the chute P, the frame F will again assume a horizontal position, thereby bringing up the lever N and the pawl N', which will move the wheel *b* one tooth. Thus, each time a cork passes underneath the pulley L, it will be branded and duly registered.

Fig. 4 shows another mode of working the counting apparatus.

A is the table; E, the guide, and L the milled pulley. Underneath the guide E is placed a spindle, R, held in suitable bearings, and connected with the counting apparatus, which, in this case, is placed on the side of the branding apparatus. This spindle has a piece of metal, S, kept up by means of a weight or spring, T. This piece of metal passes through the guide E, which is cut out so as to allow it to be brought on a level with it. Each time a cork is taken underneath the pulley L it will depress the piece of metal S, as shown in dotted lines at S', and in so doing will move the lever N of the counting apparatus, and register each cork as it passes over it.

I claim as my invention—

1. The combination of the pulley H, wheel J, pinion J', driving a milled pulley, L, the frame F, oscillating on the standard B, and the support Q, substantially as described and represented.

2. The oscillating frame F F, mounted on the spindle G, and carrying at one end the milled pulley L, in combination with the lever N and its pawl N', operated by the swinging frame, and a counting mechanism, M, substantially as and for the purpose described.

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