C. BATES.

APPARATUS FOR IMMERSING SHINGLES AND OTHER ARTICLES IN LIQUIDS.

No. 105,769. Patented July 26, 1870.

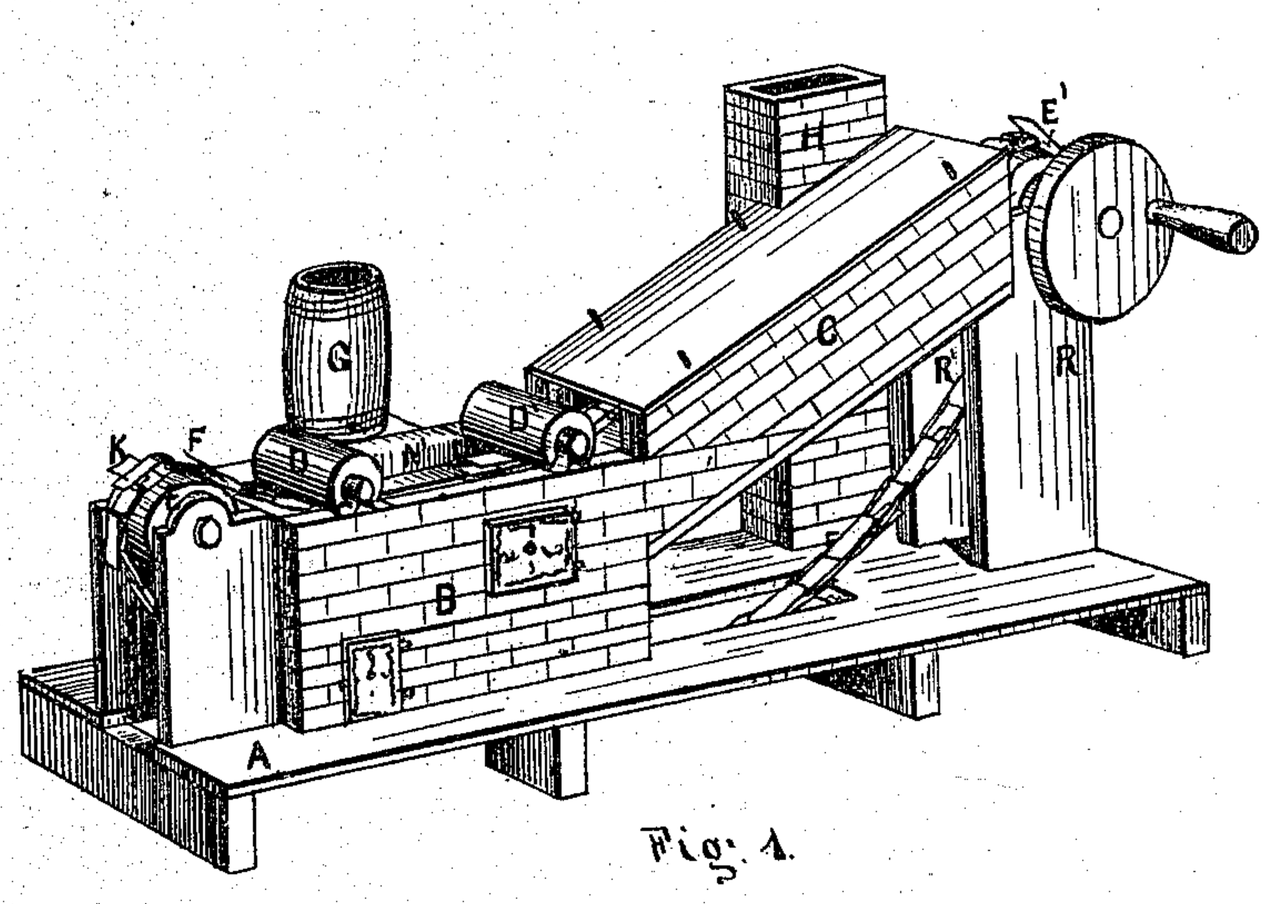

Fig. 1.

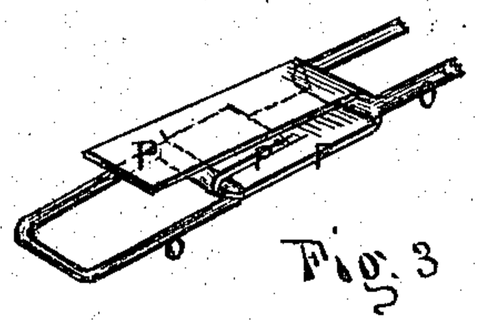

Fig. 3

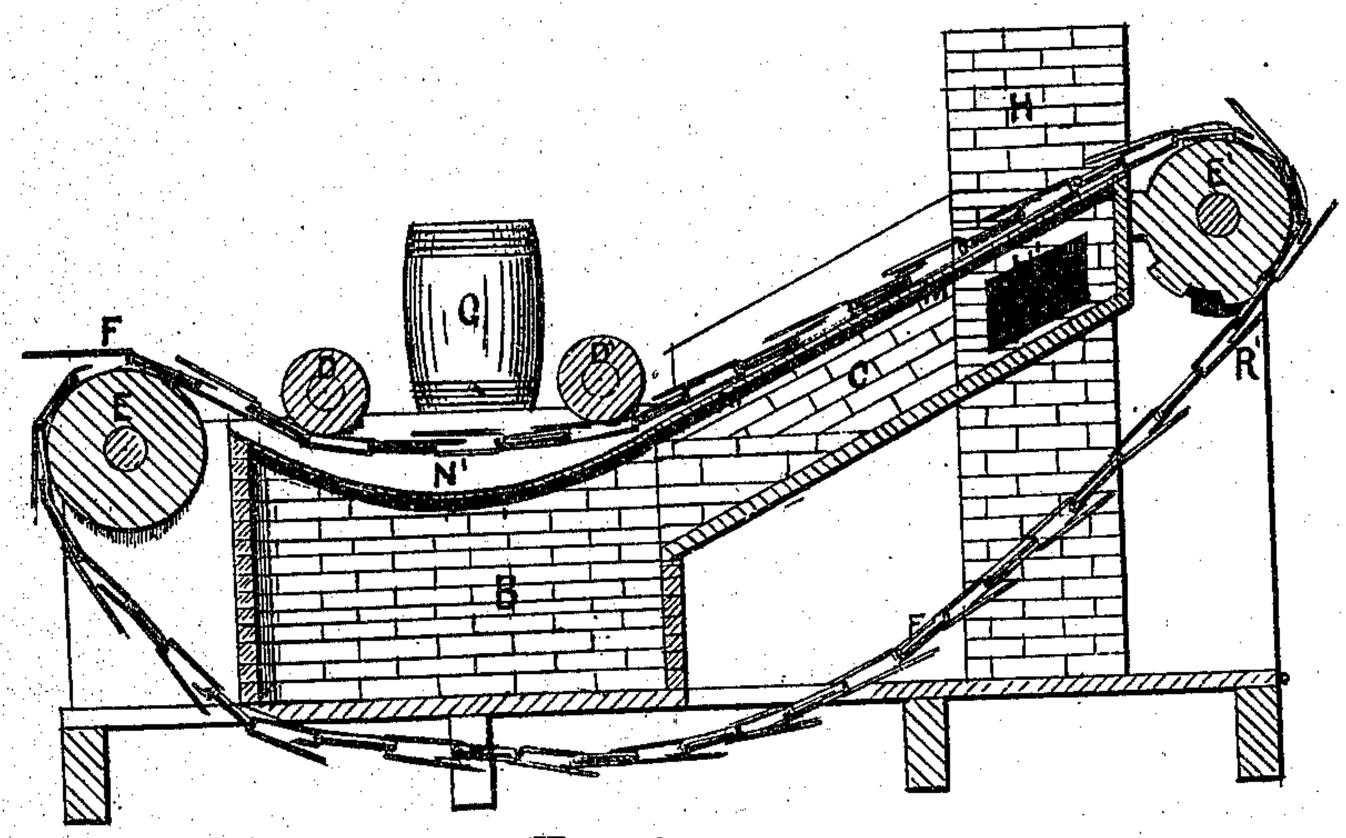

Fig. 2

Witnesses { Frank H. Parker, Jas. L. Donant }

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CALEB BATES, OF KINGSTON, MASSACHUSETTS.

Letters Patent No. 105,769, *dated July* 26, 1870.

IMPROVEMENT IN APPARATUS FOR IMMERSING SHINGLES AND OTHER ARTICLES IN LIQUIDS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

I, CALEB BATES, of Kingston, in the county of Plymouth and State of Massachusetts, have invented a certain new and useful Immersing Device, of which the following is a specification.

Nature and Object of the Invention.

The nature of my invention consists in combining a chain belt of a peculiar construction with an immersing-tank and a heating and dyeing device, the object being to provide an automatic device for immersing in some desirable fluid or other preserving substance, and afterward drying, small articles.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of my invention.

Figure 2 is a vertical longitudinal section.

Figure 3 is a perspective view of one of the links of the carrying-chain.

General Description.

I construct my machine as follows:

B represents the heating-furnace, over which the tank N′ is located.

C is a flue, extending from the furnace B on an incline to the chimney H.

The upper side of this flue is formed by a metallic plate, M M, fig. 2.

This plate M M is kept at a high degree of temperature by the heat of the furnace B.

D and D′ are two rollers, which revolve partly immersed in the tank N′, and serve to keep the chain F beneath the surface of the fluid in the tank N′.

E and E′ are two rollers, one or both of which may be sprocketed, as shown at E′, fig. 2.

The carrying-chain is made of links, being connected by a metal plate, P P^1 P^2, bent as shown in fig. 3, so as to serve to hold the links together, and thus complete the chain, and also as a clasp to hold the article to be immersed.

The clasping device consists of the part P^1, acting in combination with the link O, the plate P^1 being somewhat elastic, and arranged as shown, so that, as they pass over the wheel E, the part P^1 will stand away from the link O, but as they pass down toward the roller D, the parts P^1 and O close together, and thus seize anything that may be placed between them, and remain closed until they have passed through the tank N′, and over the hot metal plate M M, but are opened as they pass over the roller E′, so that the article being acted upon may be pushed out by the side pieces R and R′, between which the chain-belt passes.

G represents a tank for keeping the supply of the liquid to be used.

The operation of my invention is as follows:

If we suppose the article to be immersed to be small billets of wood, shingle, for instance, the operator stands near the wheel E, the chain being set in motion, and places one of the articles so that it will be clasped by the clasping device, as it passes over the wheel E.

K, fig. 1, represents an article so placed.

The belt will now carry the article so placed down into the tank N′, where it will be thoroughly immersed in the liquid or other preserving or embellishing material in the tank; thence it will be carried upward over the hot metal plate M M, and thus dried, after which it will pass over the wheel E′, and drop.

I claim as my invention—

1. In an immersing device, the carrying-chain F F, in combination with the tank N′ and drying-flue C, substantially as described and for the purpose set forth.

2. In the carrying-chain, the extension P^1 of the connecting-plate, in combination with the link O, to form a griping device, substantially as described and for the purpose set forth.

CALEB BATES.

Witnesses:

FRANK G. PARKER,

JAS. S. CONANT.