(No Model.) 2 Sheets—Sheet 1.

C. L. DEXTER.

MACHINE FOR BLANCHING ALMONDS.

No. 421,681. Patented Feb. 18, 1890.

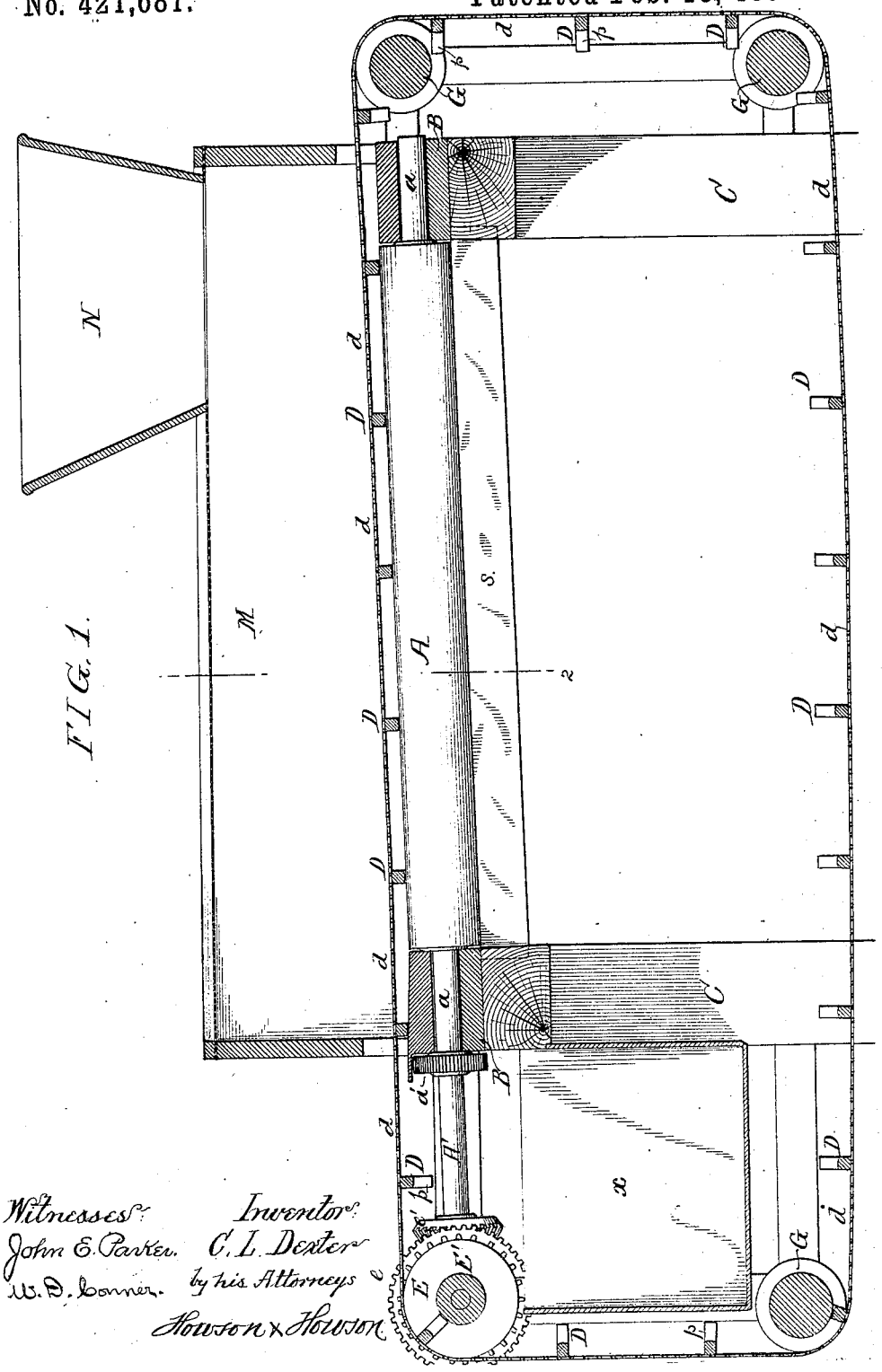

FIG. 1.

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W. D. Sonner.

Inventor:
C. L. Dexter
by his Attorneys
Howson & Howson

(No Model.) 2 Sheets—Sheet 2.

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FIG. 2.

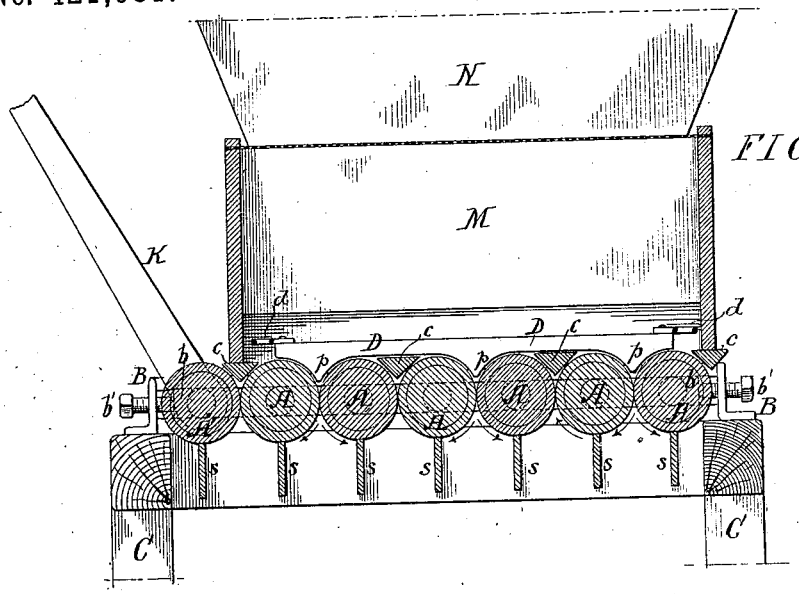


FIG. 4.

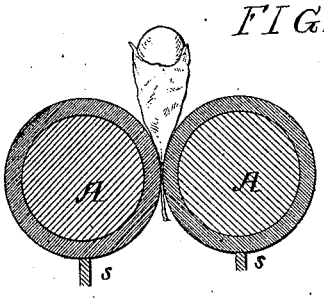
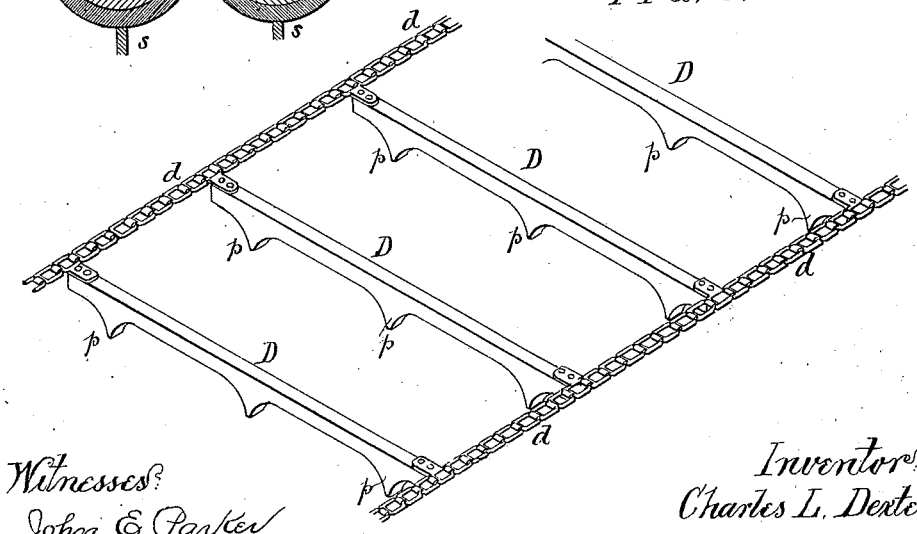


FIG. 3.



Witnesses:
John E. Parker
William D. Bonner.

Inventor:
Charles L. Dexter
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UNITED STATES PATENT OFFICE.

CHARLES L. DEXTER, OF PHILADELPHIA, PENNSYLVA

MACHINE FOR BLANCHING ALMONDS.

SPECIFICATION forming part of Letters Patent No. 421,681, dated February 18, 1890.

Application filed July 13, 1888. Serial No. 279,840. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. DEXTER, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented a Machine for Blanching Almonds, of which the following is a specification.

The object of my invention is to construct a simple and efficient machine for blanching or skinning almonds; and it consists, essentially, of a series of driven rolls mounted in or substantially in a horizontal plane with suitable cleaning-bars traveling along the top of the rolls in the direction of their length to carry away the blanched almonds, as fully described hereinafter.

In the accompanying drawings, Figure 1 is a longitudinal section of my improved blanching-machine. Fig. 2 is a transverse section of the same on the line 1 2, Fig. 1. Fig. 3 is a detached perspective view of a number of the cleaning-bars; and Fig. 4 a detached view, drawn to an enlarged scale, of a pair of blanching-rolls, showing their action upon an almond.

A are a series of rolls having reduced portions *a a* at each end forming journals. These journals are adapted to slotted boxes B B, on a suitable frame C. The rolls A are geared together by a train of pinions *a'* at one end of the machine, the pinions being secured to the journals *a*.

At one end of the machine is a roller A', having reduced portions forming journals in the same manner as the rollers A. This roller A' has a pinion gearing with a train of rolls A, and is provided with a crank-handle K. The object of extending this roll out to one end of the machine is that the handle may be clear of the mechanism described hereinafter. The rolls are coated with or made of rubber or other flexible material and are adjustable toward and from each other by means of set-screws *b'* at each end of the bearings B, these set-screws bearing against the blocks *b*, which rest against the journals of the rolls. By turning these set-screws the rolls can be moved toward and from each other so as to create more or less pressure on the skin of the almond to be blanched.

It will be noticed that the rolls are divided into pairs, and I insert between each pair of rolls a triangular filling-piece *c*, to prevent the almonds resting in the spaces between the pairs of rolls.

D D are a series of cleaning-bars, connected together at their ends by endless chains or belts *d*. These cleaning-bars traverse the faces of the rolls in the direction of their length, as shown in Figs. 1 and 2.

The chains pass over suitable sprocket-wheels E on a shaft E' mounted in bearings in the frame of the machine and over suitable guide-rolls G, as shown in Fig. 1, so that the cleaning-bars will pass over the rolls in the direction of their length. The shaft E' is geared to the journal of the roll A' through the medium of the bevel gear-wheel *e* and bevel-pinion *e'*, so that it will be seen that while the rolls A travel at a comparatively high rate of speed the cleaning-bars are moved slowly along the faces of the rolls.

The cleaning-bars may be plain straight bars, if desired; but I prefer to make them in such a manner that they will conform to the contour of the rolls, as shown in Figs. 2 and 3, so that all the almonds will be removed from the machine. The projections *p* on the bars, as will be noticed, extend between those parts of the rolls where the blanching operation is carried on, the spaces between the pairs of rolls being occupied by the above-mentioned filling-pieces. Under each roll of the series is placed a scraping-blade *s*, resting against the faces of the rolls in order to remove any of the almond-skins or other matter which may adhere to the rolls. The whole series of rolls may be inclined slightly, in order to aid in the delivery of the blanched almonds.

I place over the rolls A a box M, which is provided with a hopper N, and having a portion covered with wire-gauze, glass, or other transparent material, so that the operation of the machine may be observed.

At the delivery end of the machine is a suitable box *x*, into which the blanched almonds are conveyed by the scraping-bars D.

The operation of the machine is as follows: The almonds are first shelled and then scalded in the usual manner for the purpose of loosening the skins. They are then fed into the machine through the hopper, and, falling on

the rolls A, are carried along the surfaces of the same by the cleaning-bars toward the delivery end of the machine, the almonds being nipped by the rolls, and the skins, which have been loosened by the scalding process, are removed. After the skin has been removed from the almond it is fed forward by the bars to the end of the machine and into the box or receptacle *x*.

The construction of the machine may be different from that shown, the main feature of my invention being the series of rolls and the cleaning-bars traveling over the same, as described.

I have shown only three pairs of rolls; but it will be understood that a greater or less number of rolls may be used, and the rolls may be lengthened, in order to allow more time for the cleaning or blanching operation.

Although my machine is especially adapted for the blanching or skinning of almonds, it will be understood that it may be used for skinning or shelling other fruits or vegetables.

I claim as my invention—

1. The combination, in an almond-blanching machine, of one or more pairs of rollers having yielding surfaces and mechanism for driving the same, with a cleaning bar or bars secured at each end and traveling over said rolls in the direction of their length, substantially as and for the purpose set forth.

2. The combination, in a blanching-machine, of one or more pairs of blanching-rollers having yielding surfaces, with a series of traveling cleaning-bars secured at each end and passing over the rolls in the direction of their length, said cleaning-bars being provided with projections so shaped as to conform to the contour of the rolls, substantially as described.

3. The combination, in a blanching-machine, of a series of rolls having yielding surfaces, with scraping-bars bearing against the faces of said rolls in order to remove the skins that adhere to the rolls, substantially as described.

4. The combination, in a blanching-machine, of a series of blanching-rolls having yielding surfaces and mechanism for revolving said rolls, with endless bands to which are secured cleaning-bars provided with a series of projections and adapted to remove the almonds from said rolls, and an inclosing-box having a hopper at one end and with a box at the delivery end of the machine for receiving the almonds from said cleaning-bars, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES L. DEXTER.

Witnesses:
WILLIAM D. CONNER,
HARRY SMITH.