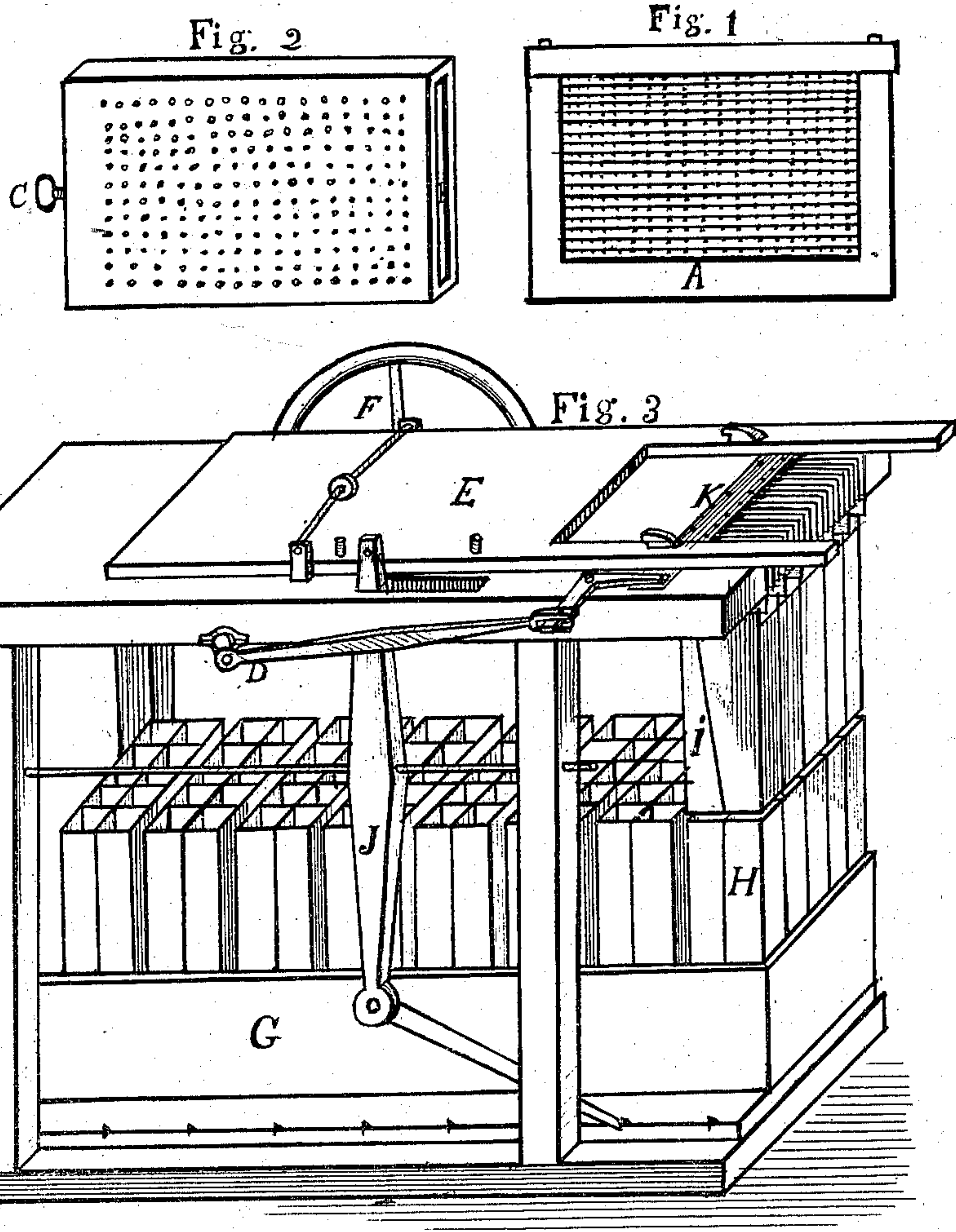


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PATENTED FEB 15 1870

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match machinery.



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Letters Patent No. 99,780, dated February 15, 1870.

IMPROVEMENT IN MATCH-MACHINE.

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

To all whom it may concern:

Be it known that I, L. T. LUTHER, of Oak Grove, in the county of Erie, and State of Pennsylvania, have invented a new and useful Improvement in Machines for Manufacturing Matches; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing forming a part of the specification thereof.

The nature of my invention consists in the employment, in a match-making machine, of certain devices whereby the splints of wood from which the matches are to be manufactured are cut the desired length and boxed, ready for the application of the igniting matter or material.

In the accompanying plate of drawings, which illustrate my invention and form a part of the specification thereof, and in which corresponding parts are represented by similar letters—

Figure 1 is a plan view of the frame or receptacle for holding the splints of wood from which the matches are hewn;

Figure 2 is a view of the match-frame casing; and

Figure 3, a perspective view of the match-making machine.

To enable others skilled in the art to avail themselves of the benefits of my invention, I will proceed to describe its construction and operation, which is as follows:

A represents a slatted frame constructed in any of the known ways, the slats of which frame being provided with grooves cut across their upper surfaces at regular or equal distances apart.

The match-frame case, seen in fig. 2, is constructed of a block, and has one end, B, left open for the reception of the frame A. This case is also provided with holes through its sides to correspond with the grooves in the slats of the frame A, and a thumb-screw, C, to secure the said frame in position in the said casing.

The machine shown in fig. 3 is provided with knives K, to match the holes in the case seen in fig. 2, and are worked by a pitman, D, and bell-crank.

The carriage E is operated by a friction-wheel attached to a shaft extending from the balance-wheel or crank F to the pitman D.

The carriage G is constructed to carry the boxes H

under the tubes I, and is drawn or operated by means of a winch or arm, J, connected to the carriage E.

The tubes I may be constructed to carry the matches in two rows or sets of boxes if the frames are large.

To operate my machine, first lay one of the slatted frames A in position and take a handful of splints and insert them in the said slatted frame, leaving a splint in each groove until the frame is full. The splints are then tightened, by pressure or otherwise, to a certain degree to hold the said splints in their place. The frame, fig. 2, is then brought parallel with the frame, fig. 1, and the splints made to enter the holes in the said frame of fig. 2, and the screw C tightened against the frame of fig. 1, thereby holding the splints in place. The frame, fig. 1, or slats A, are loosened, and case or frame, fig. 2, withdrawn and placed on blocks holding the frame at the length of a match from a level surface. Frame, fig. 2, is then loosened and the splints caused to drop on the plain surface. The screw C is tightened and the igniting material is applied to the splints when dry. They are set on the carriage E, the machine is put in motion; it cuts off the matches and drops them with the igniting ends downward into the boxes I. Shake the boxes to make them become even therein, and when emptied into other boxes they are evenly numbered with their heads upward.

Having thus described the nature, construction, and operation of my invention, I will indicate what I claim and desire to secure by Letters Patent in the following clauses:

1. The frame A, combined and arranged with the transfer frame, when constructed to operate as described.

2. The knives K, bell-crank and pitman D, herein described, in combination with the shaft operated by the balance-wheel F, all the parts being constructed, arranged and operating as specified.

3. The arrangement of the shaft operated by the balance-wheel F, with a friction-wheel attached thereto, the carriage E, lever J, and carriage G, when constructed and operating as described.

L. T. LUTHER.

Witnesses:

G. W. GILLET,

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