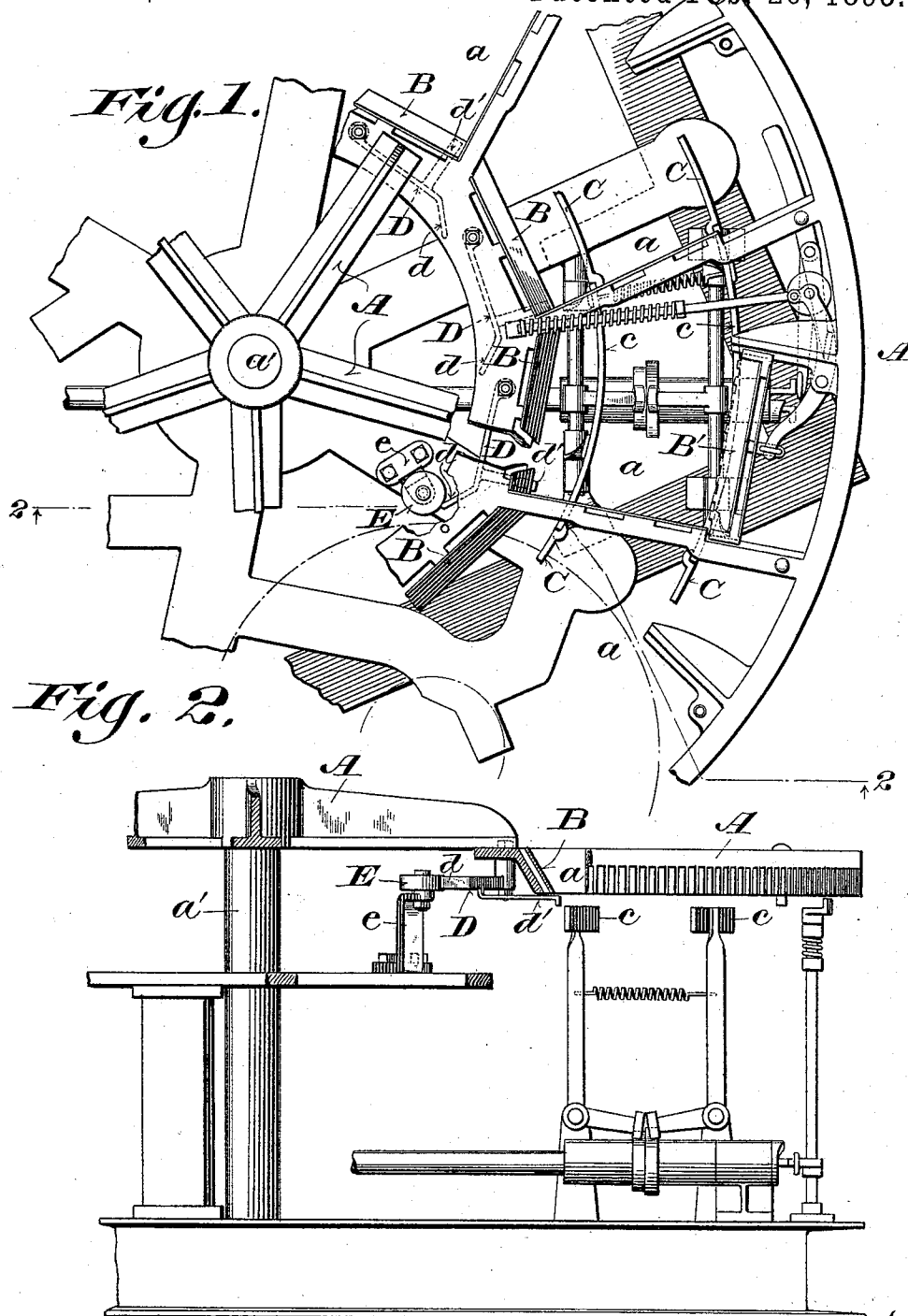


(No Model.)

F. CHALLONER.
SHINGLE SAWING MACHINE.

No. 534,683.

Patented Feb. 26, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK CHALLONER, OF OSHKOSH, WISCONSIN.

SHINGLE-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 534,683, dated February 26, 1895.

Application filed August 6, 1894. Serial No. 519,558. (No model.)

To all whom it may concern:

Be it known that I, FRANK CHALLONER, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Shingle-Sawing Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The main object of my invention is to positively disengage the blocks or spalts from the dogs when they are opened to drop or discharge them.

It consists essentially of the combination with the block holding dogs of a movable part applied to the carriage and a fixed part or trip arranged to thrust the movable part at the proper time against a block or spalt and force it off from one of said dogs.

In the accompanying drawings like letters designate the same parts in both figures.

Figure 1 is a plan view of so much of a rotary shingle sawing machine to which my spalt ejector is applied as is necessary to afford a clear understanding of my invention; and Fig. 2 is a vertical section thereof on the line 2, 2, Fig. 1.

For convenience of illustration I have shown my invention applied to a rotary machine generally resembling those shown in United States Patents No. 358,474, granted March 1, 1887, to Patrick O'Connor, and No. 409,011, granted to me August 13, 1889, but I do not wish to be understood as limiting myself in the application of my improvement to this class of machines, for it is equally applicable to double or single block machines of various kinds employing reciprocating carriages. The device however, will be found of particular advantage in rotary machines of the class above mentioned, in which the blocks or spalts are dropped by the dogs on spalting ways having one or more movable sections for discharging the blocks or spalts when desired from the machine, especially in those machines like or similar to that shown in the above mentioned patent to

O'Connor, in which the spalt dropping device has one instead of two movable sections, because in such machines, if a block or spalt sticks to one of the dogs its disengagement therefrom will be obstructed by the fixed spalting way which prevents the released end of the block or spalt from falling as far as it otherwise would; and in either case, if a block or spalt released and dropped at one end by the movable dog sticks to the other dog when the spalter is opened, it will be carried by the carriage against the end of the fixed way, forming a continuation of the movable section, and will thus either stop or break the machine.

Soft light blocks are particularly liable to stick upon the fixed dog, and are thus not only prevented from being discharged from a rotary machine by the spalt dropper, as above explained, but in machines employing either rotary or reciprocating carriages, they are prevented from dropping at both ends upon the tilt tables, thereby causing the saw to cut a shim or wedge-shaped piece from one end only of the block and wasting material.

Referring to the drawings, A designates the carriage of a rotary shingle sawing machine, formed in the usual way with a series of block openings or receptacles *a a*, and mounted at the center upon the upper end of a vertical shaft *a'*. Each block receptacle is provided as usual, with a fixed dog B, and a movable dog B'. Suitable mechanism, as shown in Fig. 1, is connected with the movable dog for moving it at the proper times toward and from the fixed dog.

C C designate curved supporting ways, located a short distance below the block receptacles of the carriage and provided with two outwardly opening sections *c c*, constituting a part of the spalt dropping mechanism commonly employed in machines of this class. Suitable mechanism under the control of the operator, as shown, is provided for opening the spalter whenever it is desired to drop a block or spalt from the carriage. The above mentioned parts being well known, I make no claim thereto, *per se*, but have shown and described them for the purpose of explaining my improvement, which has certain relations thereto more or less direct.

As hereinbefore stated, the block ejector constituting my present invention, comprises a movable part applied to the carriage, and a fixed part or trip applied to the frame of the machine. The movable part may be conveniently made in the form of an arm D, which is pivoted at one end on a vertical stud or bolt to the carriage frame adjacent to the fixed dog B, of a block opening or receptacle therein. At its opposite end this arm is formed or provided with an incline *d* and a lateral branch or projection *d'* extending outwardly therefrom between the lower edge of the fixed dog B and the plane of the saws which it is made to clear. One of these arms D is provided for each block receptacle, as shown in Fig. 1. The fixed part or trip may be a friction roller E, mounted in the path of the inclines *d d* of arms D, upon a bracket *e*, or any other convenient part of the frame. In the present instance this roller is placed at such a point in the circuit of the arms D as to engage the inclines *d d* thereof, and thrust the projections *d' d'* outward beyond the lower edges of the fixed dogs when they are directly opposite the movable sections *c c* of the supporting ways, or when the blocks or spalts in the corresponding openings or receptacles are in position to be discharged from the machine by the opening or spreading of said sections. A roller or other suitable trip is also provided for each tilt table (not shown) and so placed with reference to the circuit or travel of the carriage as to thrust the arms D D of the ejectors outward when the corresponding block openings or receptacles are directly over the tilt table, so as to insure the disengagement from the fixed dog of the shingle blocks, and their dropping and resting at both ends on the tilt table before they are redogged.

Various changes in the details of the device may be made within the intended scope of my invention, which as hereinbefore stated, is applicable to various kinds of machines other than that herein shown and described.

I claim—

1. In a shingle-sawing machine, the combination with the carriage provided with dogs, of a block or spalt ejector consisting of a movable part applied to the carriage and a fixed part or trip applied to the frame and arranged to thrust the movable part at the proper time against the block or spalt and force it off from

one of said dogs, substantially as and for the purposes set forth.

2. In a shingle-sawing machine, the combination with the carriage provided with a fixed and a movable dog, of a block or spalt ejector consisting of a movable part applied to the carriage adjacent to the fixed dog, and a fixed part or trip applied to the frame and arranged to thrust the movable part at the proper time into engagement with a block or spalt and force it off from said fixed dog, substantially as and for the purposes set forth.

3. In a shingle-sawing machine, the combination with the carriage provided with dogs, and a block support below said carriage, of a block ejector comprising a movable part applied to the carriage and a trip or stationary part arranged to thrust said movable part against a block or spalt and disengage it from the adjacent dog while it is over said support, substantially as and for the purposes set forth.

4. In a shingle-sawing machine, the combination with a rotary carriage having a series of block openings or receptacles, each provided with fixed and movable dogs and spalt-ing ways having one or more movable sections, of block ejectors consisting of movable parts mounted upon the carriage one adjacent to each block receptacle, and a fixed part or stationary trip adapted to thrust said movable parts against the block or spalts and force them off from the fixed dogs while they are opposite the movable section of the spalt-ing ways, substantially as and for the purposes set forth.

5. In a shingle-sawing machine, the combination with the carriage provided with a fixed and a movable dog, of a block ejector consisting of an arm pivoted to the carriage and formed or provided with an incline and a trip on the frame in position to engage said incline and thrust said arm against a block or spalt and force it off from the fixed dog at the desired point in the movement of the carriage, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

FRANK CHALLONER.

Witnesses:

W. W. KIMBALL,
ELLA F. JACKMAN.