D. C. NEWELL.

SAFETY-TRAPS FOR CHIP-CARRIERS IN WOOD-WORKING MACHINERY.

No. 193,774. Patented July 31, 1877.

FIG. 1.

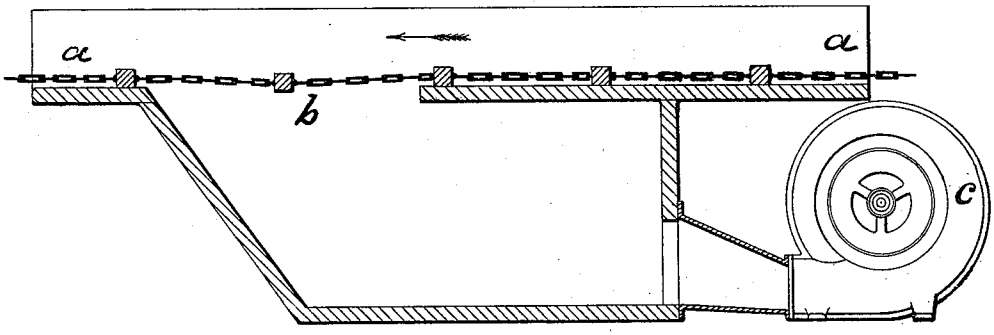
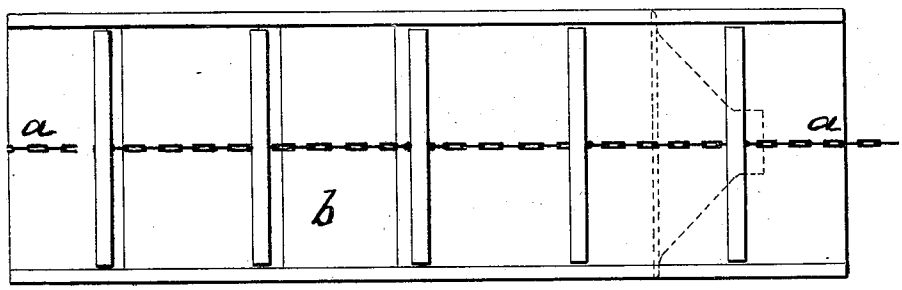


FIG. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DARIUS C. NEWELL, OF YONKERS, NEW YORK.

IMPROVEMENT IN SAFETY-TRAPS FOR CHIP-CARRIERS IN WOOD-WORKING MACHINERY.

Specification forming part of Letters Patent No. **193,774**, dated July 31, 1877; application filed July 5, 1877.

To all whom it may concern:

Be it known that I, DARIUS C. NEWELL, of Yonkers, county of Westchester, and State of New York, have invented a new and useful Improvement in Safety-Traps for Wood-Working Machinery, of which the following is a specification:

In wood-working machinery, when chips and shavings are transferred by a carrier to be ground in a mill, accidents are sometimes occasioned by chisels, hammers, large knots, or other bulky and hard matter being delivered to the mill, which are too refractory to be ground, and therefore necessarily involve a breakage of the machinery, unless the driving-belt fortunately slips from the pulley.

The object of my invention is to avoid these accidents, by separating such matter from the lighter material that is conveyed by the carrier. To attain this object, my said invention consists in making an open space in the chute of the carrier through which passes the blast from a blower with sufficient force to sustain the lighter material as it is carried over, while the heavier and dangerous matter fails to be supported by the blast, and falls through the opening into a receptacle or trap below.

To enable others skilled in the art to which it belongs to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

Figure 1 is a vertical section of my said safety-trap, and Fig. 2 is a plan of the same.

The carrier *a*, composed of an endless chain and cross-bars, passes in the direction indicated by the arrow over the open space *b*, in the bottom of the chute in which it travels, to which is delivered the blast from the blower *c*.

The blast supports the chips and shavings as they are dragged over the space by the carrier, and any heavier matter, such as an iron bolt or hammer, that may have fallen among the shavings, or even a dense knot that would be likely to endanger the machinery if delivered to the mill, falls into the trap and remains at the bottom of the receptacle, where it remains in safety, and whence it may be removed at any convenient time.

I claim as my invention and desire to secure by Letters Patent—

The combination of a blower with the carrier or chute, constructed with an opening in the bottom, substantially as described.

DARIUS C. NEWELL.

Witnesses:

P. H. VERNON,

WM. KEMBLE HALL.