G. E. FINKENBINER & F. G. MARTIN.

SHINGLE MILL.

APPLICATION FILED SEPT. 6, 1911.

1,068,996.

Patented July 29, 1913.

2 SHEETS—SHEET 1.

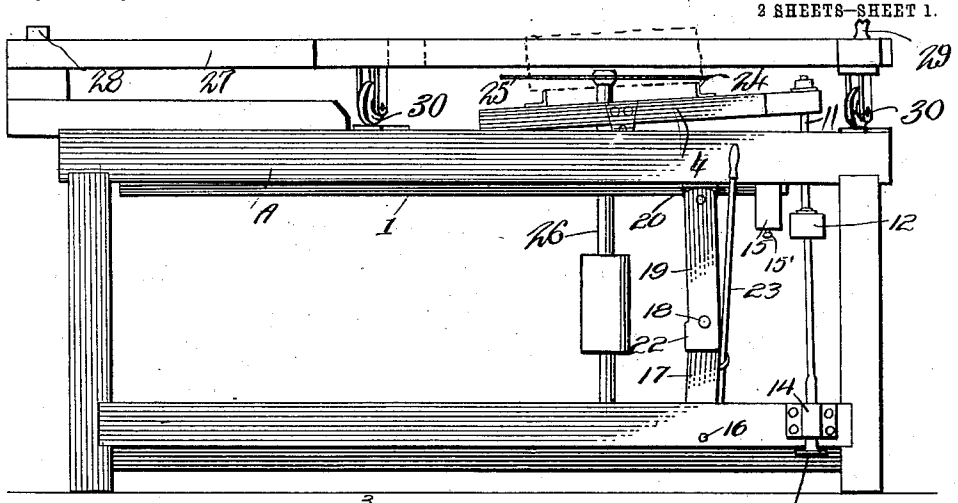


Fig. 1.

Fig. 2.

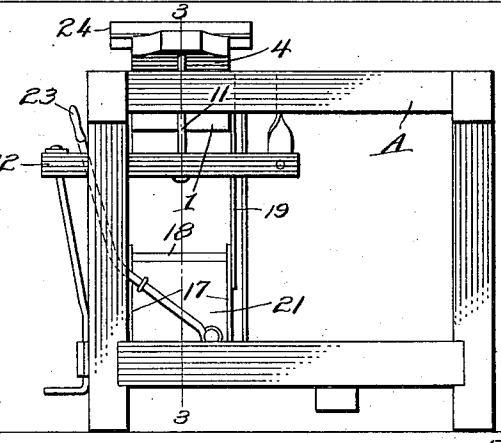
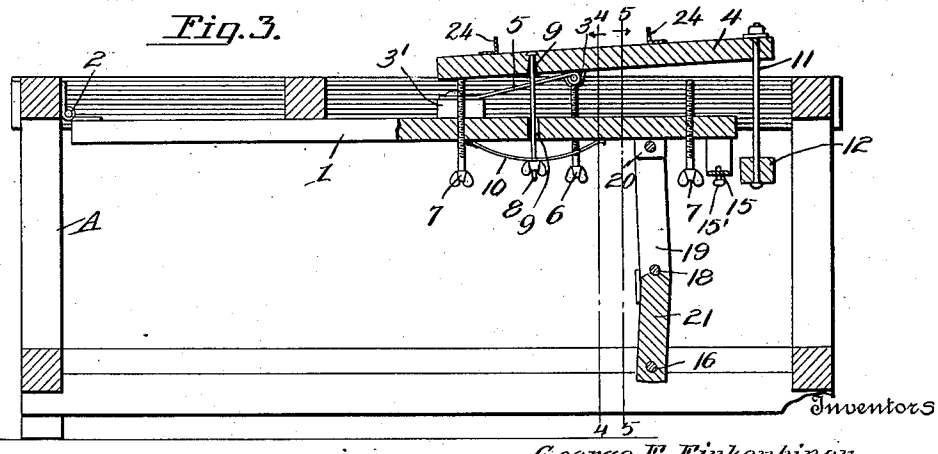


Fig. 3.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

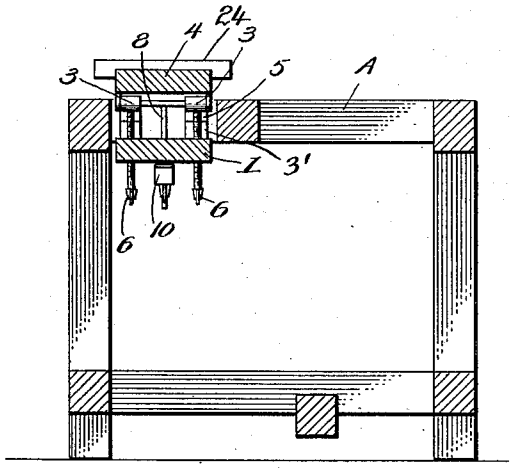


Fig. 5.

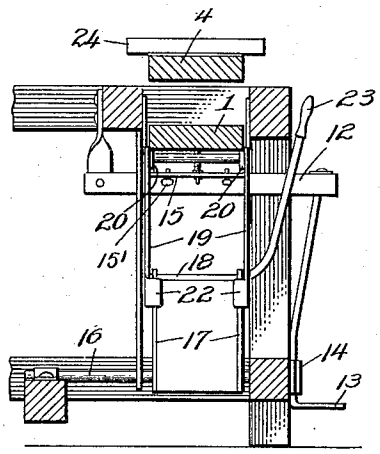
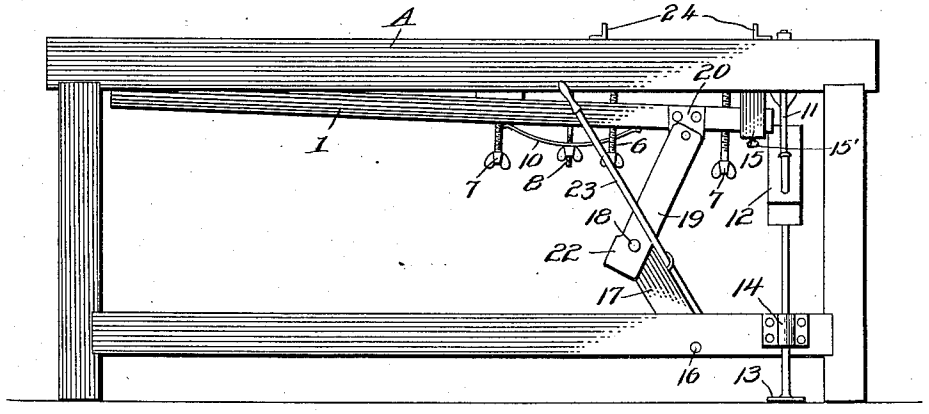


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE E. FINKENBINER AND FRANCIS G. MARTIN, OF RICHFIELD, PENNSYLVANIA.

SHINGLE-MILL.

1,068,996. Specification of Letters Patent. Patented July 29, 1913.

Application filed September 6, 1911. Serial No. 647,826.

To all whom it may concern:

Be it known that we, GEORGE E. FINKENBINER and FRANCIS G. MARTIN, citizens of the United States, residing at Richfield, in the county of Juniata and State of Pennsylvania, have invented new and useful Improvements in Shingle-Mills, of which the following is a specification.

This invention relates to shingle mills, and it has for its object to so support the head block or block table that it may be dropped or lowered for the purpose of taking a slab off the block when the first cut is made.

The invention consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the claim may be resorted to when desired.

In the drawings,—Figure 1 is a side elevation showing as much of a shingle mill as is necessary to illustrate the invention. Fig. 2 is an end elevation of the same. Fig. 3 is a longitudinal sectional view taken on the line 3—3 in Fig. 2. Fig. 4 is a transverse sectional view taken on the line 4—4 in Fig. 3. Fig. 5 is a transverse sectional view taken on the line 5—5 in Fig. 3. Fig. 6 is a detail side view showing the block table lowered.

Corresponding parts in the several figures are denoted by like characters of reference.

The frame A, which may be of any suitable construction and dimensions, carries a longitudinally extending arm 1 which is hingedly supported at one end of the frame, as shown at 2. The arm 1 is provided with bearings 3 supporting a tiltable block table 4. The bearings 3 are formed at the ends of resilient arms 5 mounted on a cross piece or supporting block 3′ and the free ends of which are supported by means of set screws 6, thus enabling the tiltable table to be vertically adjusted. For the purpose of regulating the extent of the tilting of the table 4 in either direction, set screws 7, 7 are provided which extend through the arm 1 and constitute stop members disposed in the path of the tiltable table. The latter is provided at one side of its pivotal axis with a rod 8 extending downwardly through an aperture 9 in the arm 1 and carrying at its lower end a spring 10 which abuts upon the underside of the arm 1, thus tending to tilt the table in one direction. The opposite end of the table has a rod 11 that extends downwardly beyond the end of the arm 1 and through a suitably supported lever 12 which is equipped with a treadle 13 guided through a keeper 14 upon the frame. It will be seen that by exerting pressure upon the treadle the tiltable table will be actuated by the lever 12 to tilt said table against the tension of the spring 10, while when pressure upon the treadle is released, the table will be restored to its initial position by the tension of the spring.

The movement of the free end of the arm 1 in a downward direction is limited by a keeper or bracket 15 having regulating screws 15′. The lower part of the frame A supports a shaft 16 which is disposed transversely with reference to the arm 1. Pivotally supported upon the shaft 16 is a pair of toggles 17, the upper ends of which are pivotally connected by means of a rod 18 with the lower ends of toggles 19, the upper ends of which are pivotally connected with lugs 20 at the sides of the arm 1. The toggles 17 are connected and spaced apart by means of a block 21 constituting a weight, and the lower ends of the toggle links 19 are provided with flanges 22 to engage the edges of the toggle links 17 for the purpose of sustaining the toggles in extended relation immediately after passing the dead center. In this position the toggles will serve to support the free end of the arm 1 at the uppermost limit of its movement, and the parts will be sustained in such relation by the gravity of the weight or block 21. Firmly secured upon the latter is a handle member 23 whereby the toggle joint may be broken for the purpose of lowering the free end of the arm 1 which, when lowered will be supported upon the bracket member 15.

The table 4 is provided with guides 24 for the block which is indicated in dotted lines and which will be tilted with the table, as will be readily understood. For the purpose of feeding the block in the direction of the saw 25 which is mounted on the arbor 26 a frame 27 is provided, said frame being pivoted on a pintle 28, and said frame being

provided with a handle 29, whereby it may be manipulated. Said frame is also shown as being provided with wheels or rollers 30 for which suitable tracks are provided on the frame A. The frame which constitutes the means for moving the block into engagement with the saw is shown only in Fig. 1, and it illustrates a well known construction which is not claimed.

It will be observed that when the arm 1 is at the uppermost limit of its movement, the tiltable table may be vibrated by means of the treadle 13 for the purpose of tilting the block which is supported upon said table. By breaking the toggle joint the arm will drop to the downward limit of its movement to enable a slab to be removed from the block.

Having thus described the invention, what is claimed as new, is:—

A frame, a hingedly supported arm, a tiltable table carried by the arm, means for tilting the table, a pair of toggles pivoted upon the frame, a pair of toggles pivotally associated with the arm, means for pivotally connecting said toggles, flanges upon the toggles associated with the arm adapted to engage the toggles associated with the frame to limit the movement of said toggles beyond the dead center, a block associated with the toggles connected with the frame and serving by gravity to maintain the toggles in extended position, and a handle member connected with said block.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE E. FINKENBINER.
FRANCIS G. MARTIN.

Witnesses:
FLOYD C. GRAYBILL,
S. H. GRAYBILL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."