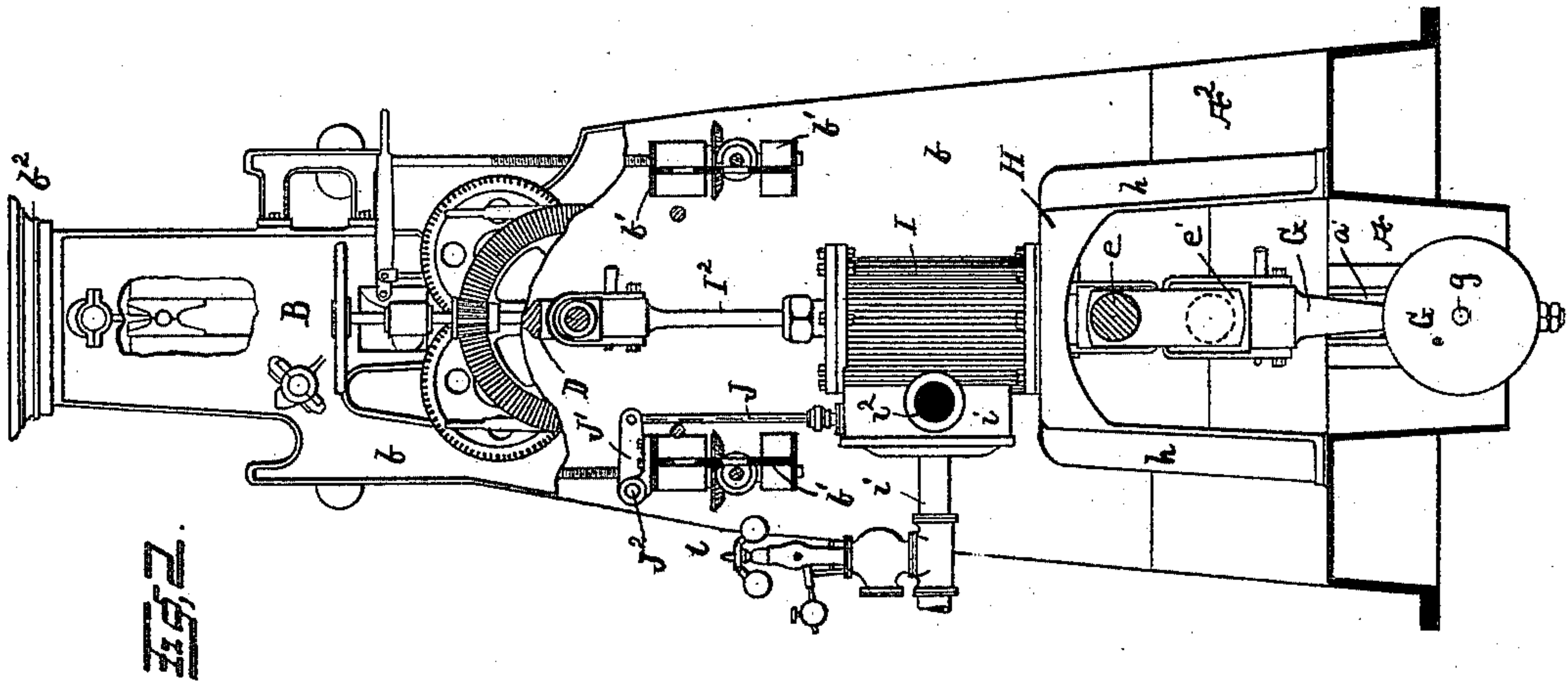
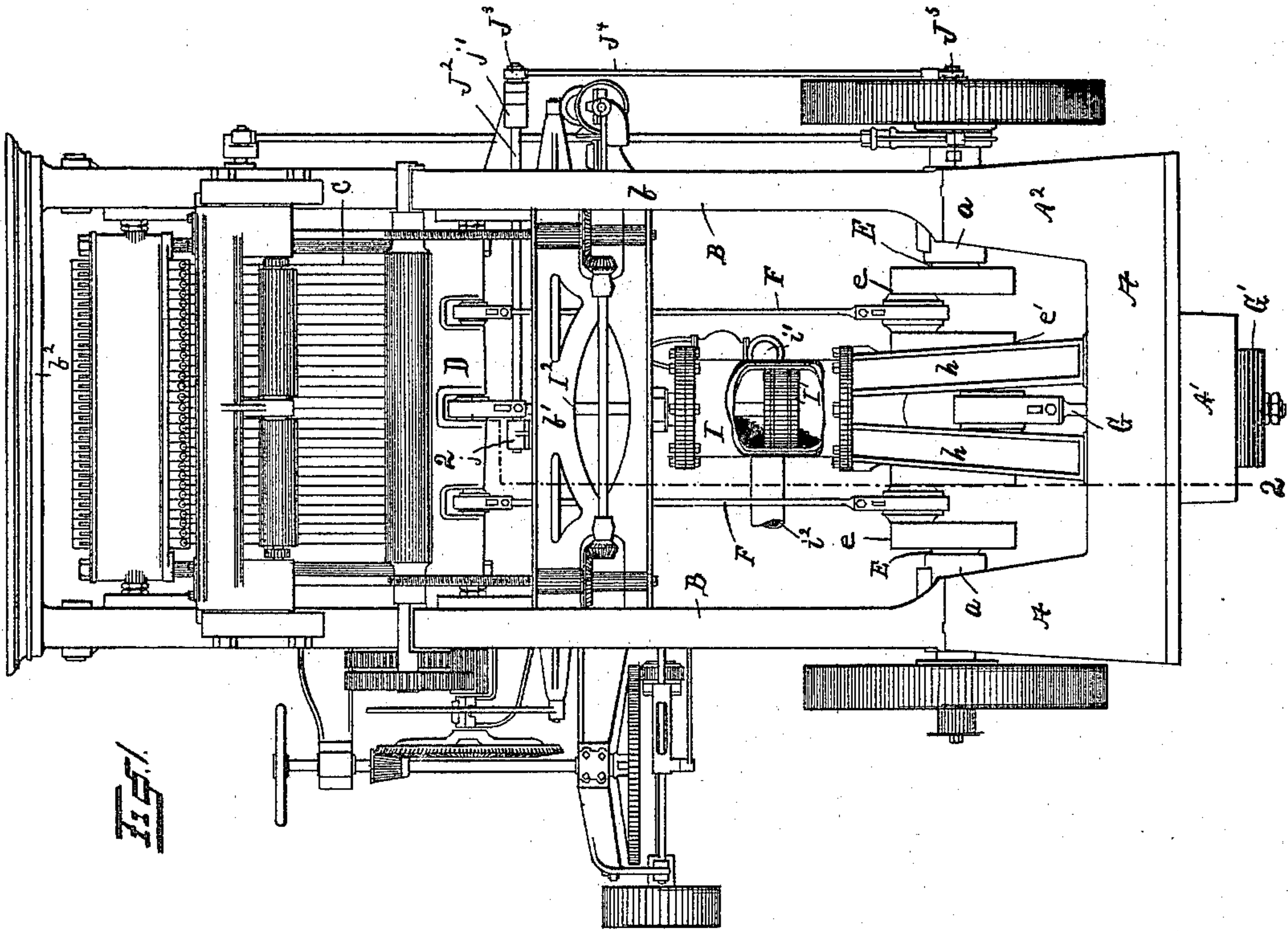


(No Model.)

W. M. WILKIN.  
GANG SAW MILL.

No. 572,922.

Patented Dec. 8, 1896.



WITNESSES.

*James Hallock Jr.*  
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# UNITED STATES PATENT OFFICE.

WILLIAM M. WILKIN, OF ERIE, PENNSYLVANIA.

## GANG-SAW MILL.

SPECIFICATION forming part of Letters Patent No. 572,922, dated December 8, 1896.

Application filed November 30, 1895. Serial No. 570,691. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. WILKIN, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Gang-Saw Mills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to gang-saw mills; and it consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claims. The invention is illustrated in the accompanying drawings, as follows:

Figure 1 shows a front view of the mill. Fig. 2 is a side view of the mill, looking from the left of Fig. 1, a part being in section on the line 2 2 in Fig. 1.

The frame of the mill is composed of the base A and the superstructure B.

The base plan is rectangularly shaped, having at its center the well A'. At the sides are the projections A<sup>2</sup>, extending above the base. The sides b of the superstructure rest on these projections A<sup>2</sup>. The superstructure is braced by the cross-pieces b' and cap b<sup>2</sup>. The saws C are placed in the saw-sash D. The superstructure is provided with guides for the sash, feeding mechanism, &c., of the usual construction.

A crank-shaft E is journaled in boxes a, placed on the projections A<sup>2</sup>. The shaft is provided with the cranks e e and the crank e', placed at the center and diametrically opposite the cranks e e. The pitmen F F connect the cranks e e with the saw-sash. A pitman connects the center crank with the counterweight G'. The counterweight is provided with the trunnions g, which work in the guides a' in the sides of the well.

A chair H, having the four legs or standards h, rests on the base and forms a bridge over the crank-shaft. A steam-cylinder I is secured on the chair and contains the steam-actuated piston I', which is connected with the saw-sash by means of the rod I<sup>2</sup>. The usual steam-chest i is provided with the steam and exhaust pipes i' and i<sup>2</sup>.

A crank or eccentric J<sup>5</sup> at the outer end of the crank-shaft operates the valve (not shown)

through the intermediate rod J, rock-lever J', rock-shaft J<sup>2</sup>, rock-lever J<sup>3</sup>, and eccentric-rod J<sup>4</sup>. The rod J<sup>2</sup> is journaled in the boxes j and j', which are secured to the frame.

The operation of the mill will be readily understood. The movement of the piston I' reciprocates the saws. The pitmen F communicate motion to the crank-shaft, and through them the counterweight balances the reciprocating parts.

It will be seen that by means of the chair the engine can be placed above the crank-shaft in position to be directly attached to the saw-sash without a heavy intermediate yoke, as is necessary when the engine is placed below the shaft. It will also be noted that the engine and crank-shaft are both carried by the base A, and by extending the chair from the base over the crank-shaft between the pitmen F F the pitmen can be brought within the frame of the superstructure, and at the same time leaving all their bearings readily accessible for oiling and cleaning and making also a very compact and self-contained mechanism. By this construction also the superstructure is relieved of the strains incident to the reciprocating motion, and can therefore be made much lighter than would be the case if one of these parts were carried thereby. By providing the well A' in the base, in which the counterweight may be placed, the crank-shaft can be set much lower than could otherwise be conveniently done, thus allowing room above the crank-shaft for the engine.

The standards or legs h for the chair afford an opening between them through which convenient access to the center crank-bearings can be had.

What I claim as new is—

1. In a gang-saw mill, the combination of the base having the projections A<sup>2</sup>; the superstructure B resting on said projections; a saw-sash in said superstructure; a crank-shaft provided with two cranks e; bearings for said shaft on said projections A<sup>2</sup>, said cranks e being between said bearings; pitmen located within the frame of the superstructure connecting said cranks with said saw-sash; a chair extending from the main base over the crank-shaft between the said pitmen; and an engine on said chair having its piston connecting with said sash.



2. In a gang-saw mill, the combination of the base having the well  $A'$  and projections  $A^2$ ; the superstructure resting on the projections  $A^2$ ; the saw-sash in said superstructure; a  
5 crank-shaft having diametrically opposite cranks  $e e$  and  $e'$ ; bearing for said shaft on projections  $A^2$  between which said cranks are located; the pitmen connecting said cranks  $e e$  with the sash; said pitmen being located  
10 within the frame of the superstructure; a counterweight located in the well of the base; a pitman connecting said counterweight with said crank  $e'$ ; a chair extending from the main frame over the crank-shaft between the sash-  
15 pitmen; and an engine on said chair having its pitman connected with said saw-sash.

3. In a gang-saw mill, the combination of the base having the well  $A'$  and projections  $A^2$ ; the superstructure resting on the projections  
20  $A^2$ ; the saw-sash in said superstructure; a crank-shaft having diametrically opposite

cranks  $e e$  and  $e'$ ; bearing for said shaft on the projection  $A^2$  between which said cranks are located; the pitmen connecting said cranks  $e e$  with the sash; said pitmen being  
25 located within the frame of the superstructure; a counterweight located in the well of the base; a pitman connecting said counterweight with said crank  $e'$ ; a chair extending over the crank-shaft between the sash-pitmen  
30 and covering the crank  $e'$  said chair being supported by legs or standards with an opening between them opposite the crank  $e'$ ; and an engine on said chair having its piston connected with said saw-sash.  
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In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM M. WILKIN.

Witnesses:

H. C. LORD,

WM. MARKS, Jr.