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J. B. CARPENTER, SPECIAL ADMINISTRATOR.

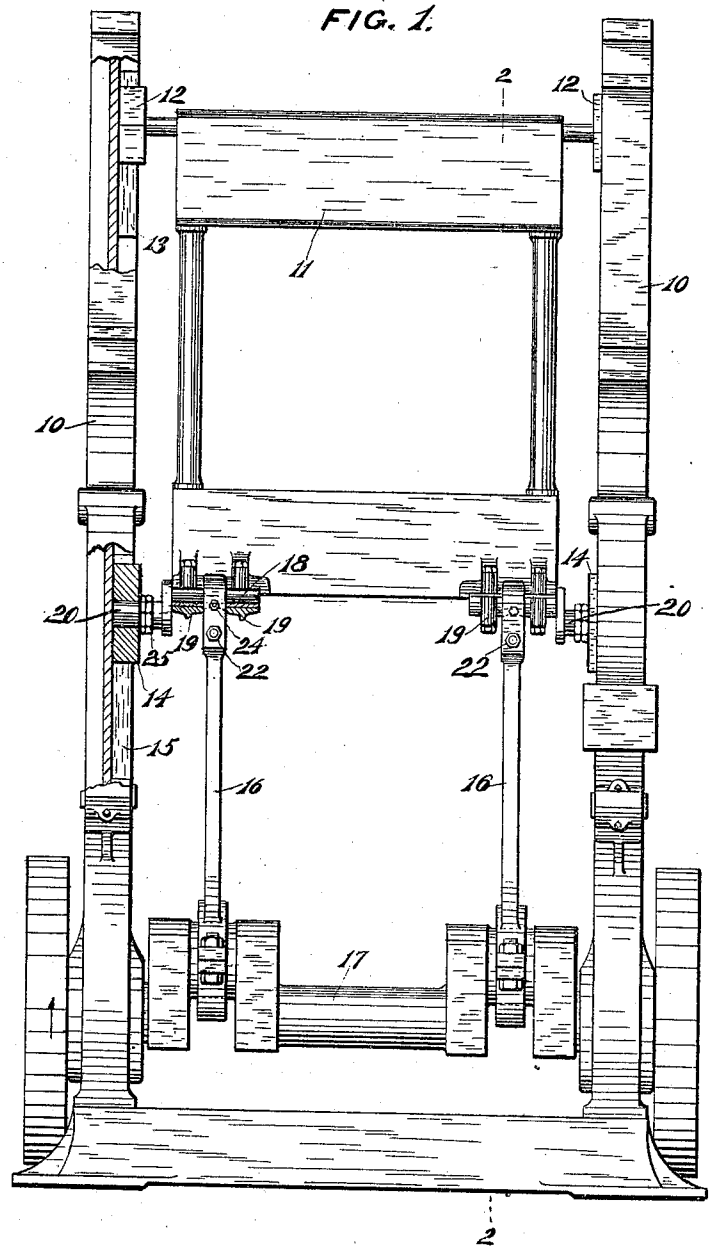
OSCILLATING MEANS FOR GANG SAWS.

APPLICATION FILED JULY 15, 1908.

996,185. Patented June 27, 1911.

2 SHEETS—SHEET 1.

FIG. 1.



WITNESSES.

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2 SHEETS—SHEET 2.

FIG. 2.

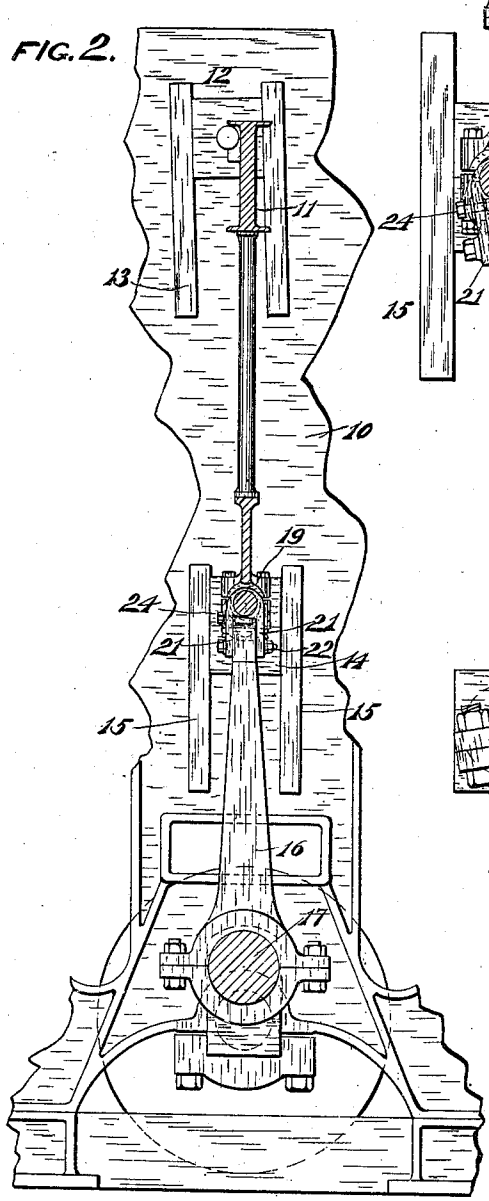


FIG. 3.

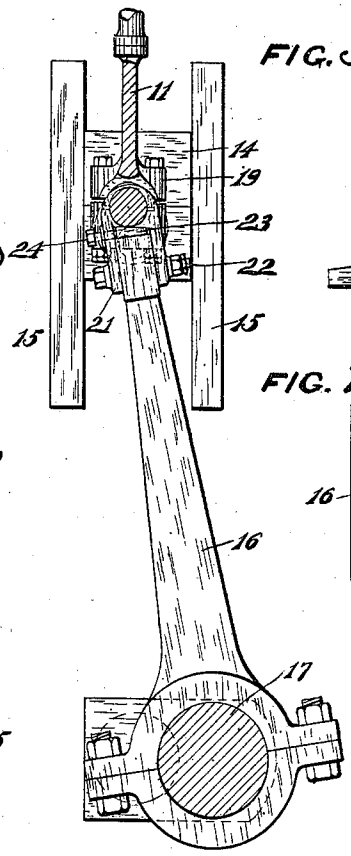


FIG. 6.

FIG. 7.

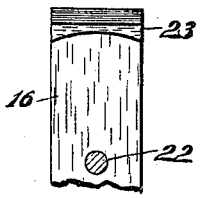


FIG. 4.

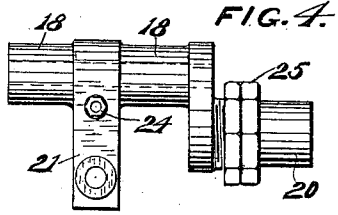
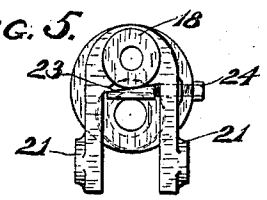


FIG. 5.



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UNITED STATES PATENT OFFICE.

THEODORE S. WILKIN, OF OSHKOSH, WISCONSIN; JOHN B. CARPENTER, OF OSHKOSH, WISCONSIN, SPECIAL ADMINISTRATOR OF SAID THEODORE S. WILKIN, DECEASED.

OSCILLATING MEANS FOR GANG-SAWS.

996,185. Specification of Letters Patent. Patented June 27, 1911.

Application filed July 15, 1908. Serial No. 443,636.

To all whom it may concern:

Be it known that I, THEODORE S. WILKIN, residing in Oshkosh, in the county of Winnebago and State of Wisconsin, have invented new and useful Improvements in Oscillating Means for Gang-Saws, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention has for its object to provide means for producing saw oscillation in gang saws comprising pitmen connecting the gang sash with the crank shaft and having pivotal connections on the sash slides eccentric to their pivotal connection with the gang sash.

Another object of this invention is to improve upon details of construction of such oscillating means for gang saws.

With the above and other objects in view the invention consists in the oscillating means for gang saws herein claimed, its parts and combinations of parts and all equivalents.

Referring to the accompanying drawings in which like characters of reference indicate the same parts in the several views; Figure 1 is a front elevation of a gang saw provided with an oscillating means constructed in accordance with this invention, parts being broken away for clearness of illustration; Fig. 2 is a sectional view thereof on the plane of line 2—2 of Fig. 1; Fig. 3 is an enlarged view of a pitman and its connection with the gang sash; Fig. 4 is a detail view of a pitman connection; Fig. 5 is an end elevation thereof; Fig. 6 is a detail view of a wedge block; and, Fig. 7 is a detail view of the upper end of a pitman with the wedge block thereon.

In these drawings 10 represents a frame of ordinary construction in which the gang sash 11 is guided in its movements by slides 12 riding in guides 13 at the upper end and by slides 14 riding in guides 15 at the lower end, there being an eccentric or crank connection between the lower end of the gang sash and the lower slides 14 operated by the pitmen 16 which connect the gang sash with the usual crank shaft 17. The crank connection between the lower end of the gang sash and the slides 14 may take various forms, relying upon the sway of the pitmen 16 for causing the crank to turn and swing the gang sash back and forth to advance the saw blades in the work and retract them at the proper times.

The preferred embodiment of this invention comprises a pitman connection as here shown, wherein a short rock shaft 18 is fitted in a pair of bearings 19 formed at the lower corner of the gang sash and is rigidly connected with the pitman 16 on that side, a crank arm 20 integral therewith and eccentric thereto being pivotally mounted in the slide 14. Preferably the connection between the rock shaft 18 and the pitman 16 is located between the two bearings 19 and is made by means of integral lug strap arms 21 embracing the end of the pitman and having a bolt 22 passed therethrough.

In order that the thrust of the pitman may be applied direct to the gang sash, a wedge block 23 is fitted between its rounded end and the rock shaft 18, and a set screw 24 is threaded in one of the arms 21 to force said wedge block inwardly to take up all play between the pitman and the rock shaft, permitting these parts to be kept in their proper relation notwithstanding wear which may occur therein. The under surface of the wedge block is made rounding to fit the rounded upper end of the pitman and conform thereto should for any reason the original alinement of the parts be disturbed, as by the more rapid wearing of the bearings 19 on one side than on the other causing the gang sash to slightly tilt. The pitman is thus enabled to swing on its bolt connection 22, which is the center of the arc of curvature of the wedge block 23 and the end of the pitman, without losing its solid connection with the gang sash. The bearings 19 are preferably formed as shown, their upper parts being formed integral with the lower girth of the gang sash and their lower parts being formed by removable bearing caps. The cranks 20 are threaded for a part of their length and have a pair of jam nuts 25 thereon to bear against the sides 14 and prevent lateral movement of the gang sash.

In operation, the oscillation of the pitmen in reciprocating the gang sash causes the cranks 20 which are rigidly connected therewith to also oscillate, and as the gang sash is mounted at its lower end by means of these cranks 20, such movement on their part causes the gang sash to swing slightly rearwardly and forwardly during its up and

down motion to advance the saw blades toward the work during the down stroke and relieve them therefrom during the return upward stroke. The rock shaft and crank and the strap connection for the pitman being formed in a single piece assures a rigidity of structure very desirable in mechanism of this character. The thrust of the pitman 16 is relieved from the bolt connection 22 by tightening the set screw 24 so as to force the wedge block 23 more tightly between the shaft 18 and the end of the pitman, and in event of the wearing of the bearings of one rock shaft 18 more rapidly than the bearings of the other rock shaft, or in event of the alinement of the pitman with the gang sash being disturbed in any other manner, the rounded end of the pitman fitting against the corresponding curved surface of the wedge block, while allowing the change in position of the parts without binding, will prevent lost motion or play between them as before mentioned.

What I claim as new and desire to secure by Letters Patent is;

1. In a gang saw, a frame, guides thereon, a saw sash, a pair of bearings on the saw sash near each side thereof, a short rock shaft journaled in each pair of bearings, an operating pitman connecting with each of the rock shafts between its bearings, a crank arm carried by each rock shaft, and slides mounted on said crank arms and operating in the guides.

2. In a gang saw, a frame, sash guides thereon, a saw sash, a pair of bearings on the saw sash near each side thereof, a short rock shaft journaled in each pair of bearings, pitman lug straps integral with the rock shafts and located between the bearings of the rock shafts, operating pitmen connected with the pitman lug straps, crank arms integral with the rock shafts, and slides movable in the sash guides and having the crank arms pivotally mounted therein.

In testimony whereof, I affix my signature, in presence of two witnesses.

THEODORE S. WILKIN.

Witnesses:
HARRY M. HERBERT,
E. RICHARDSON.