

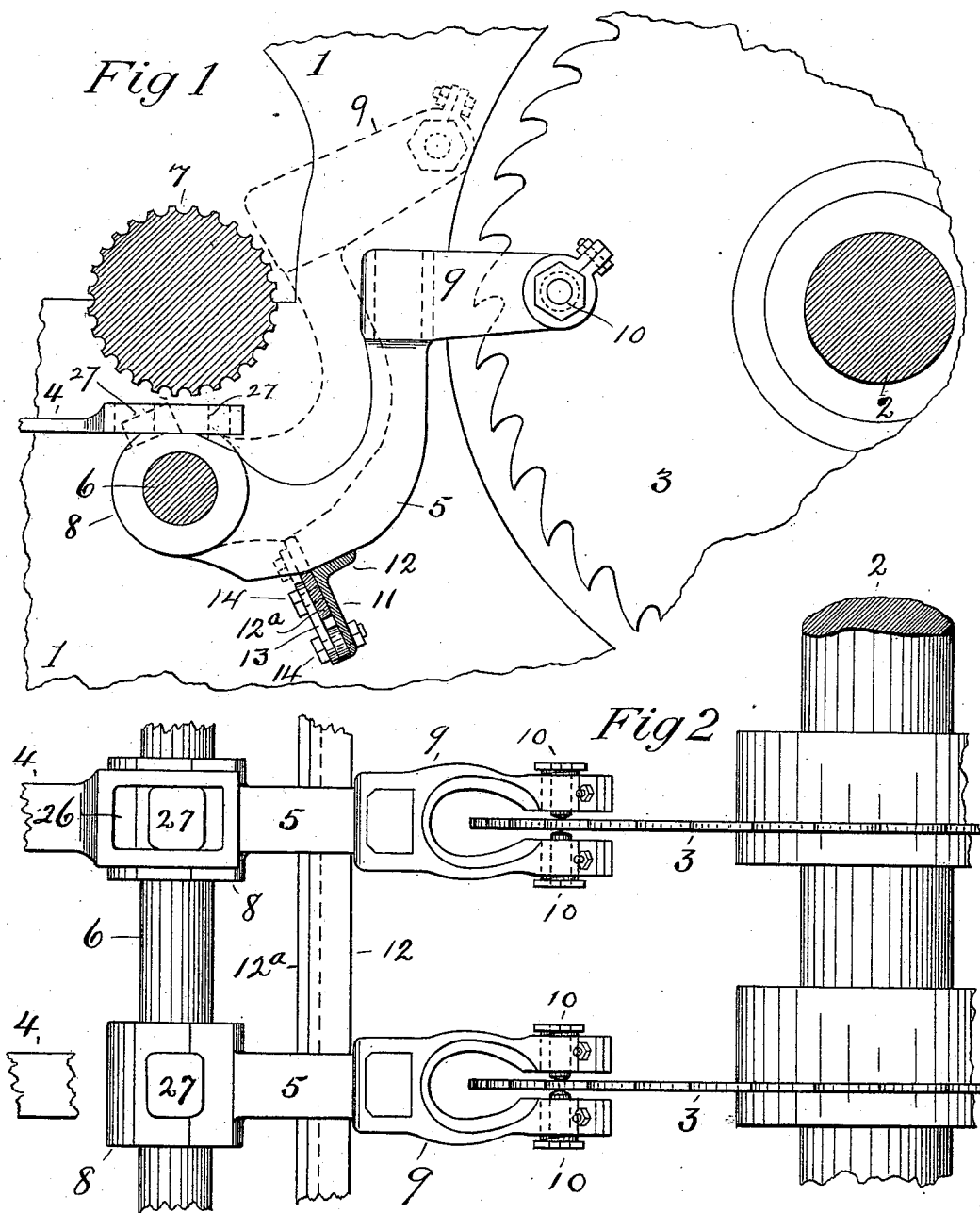
(No Model.)

2 Sheets—Sheet 1.

C. H. UPTON.
GUIDE FOR GANG EDGER SAWS.

No. 523,298.

Patented July 17, 1894.



Witnesses
R. Blum.
Carrie Potelini

Inventor
Charles H. Upton
per R. H. Gunkel
Attorney

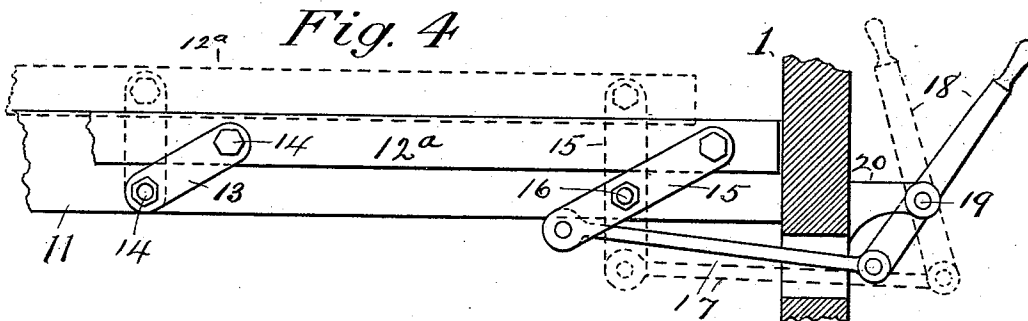
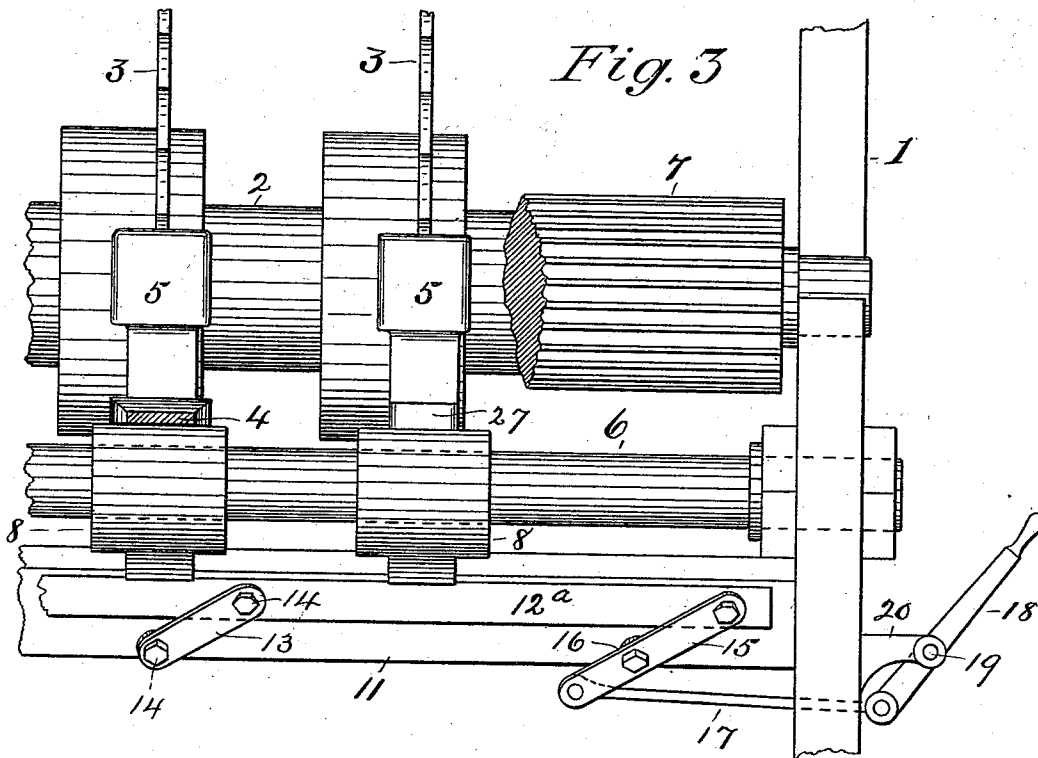
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UNITED STATES PATENT OFFICE.

CHARLES H. UPTON, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO THE
UNION IRON WORKS, OF SAME PLACE.

GUIDE FOR GANG-EDGER SAWS.

SPECIFICATION forming part of Letters Patent No. 523,298, dated July 17, 1894.

Application filed December 5, 1893. Serial No. 492,841. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. UPTON, a citizen of the United States, residing at the city of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Guides for Gang-Edger Saws, of which the following is a specification.

My improvements relate, generally, to the well-known class of machines for removing the edges of slabs and for trimming the edges of boards to reduce them to desired widths; and, specifically, to the yokes or guides for the saws, and the means for moving them to and from engaging positions in such machines.

It is the object of the invention to provide convenient means for moving more than a single guide to or from engaging position at one time; and the improvements will appear more fully in the description following and will be sought to be summarized in the appended claims.

In illustration of my improvements I have shown in the accompanying drawings, in Figure 1, a longitudinal sectional elevation of a portion of a gang-edger containing the improvements; in Fig. 2, a plan view of the same; in Fig. 3, an elevation viewed from the left of Fig. 1; in Fig. 4 details of the mechanism for operating the saw guides.

In the drawings the reference figure, 1, designates portions of the frame of the machine; 2, the saw-arbor; 3, the saws; 4, portions of the levers for shifting the saws; 5, the yokes or guides for engaging the sides of the saws to enable them to be moved by the levers 4; 6, the rod or shaft on which these guides are made to slide; and, 7, one of the feed rollers. All of these parts may be of any well-known or suitable construction and are referred to only for the purpose of showing the connection of the improvements with suitable mechanism; and it is not deemed necessary therefore to enter into particular description of their construction or operation. For the present improvements relate to means whereby a plurality of such guides may be swung to or from engaging positions at a single operation.

The guide 5 illustrated is a curved bar or arm extending from a hub 8 on the rod 6, and on the upper portion of this arm or bar is a

lateral portion 9, preferably connected by means of a slot formed in the one member adapted to receive a reduced portion of the other. The arm 9 is bifurcated and may be of any suitable form and provided with adjustable pins or devices 10, arranged to bear against the lateral faces of the saws.

To permit the saw guides to move lengthwise of, and at the same time adapt them to be swung upon the guide-shaft 6, the following means are shown: A transverse bar 11 is fastened to the sides of the machine and provided with a flange 12 upon which the guide arms 5 rest when in position for engaging the saws. A bar 12^a, parallel to the bar 11, is connected to it at suitable intervals by links 13 that are connected by pivots 14 to the respective bars. The upper edge of the movable bar 12^a is arranged in contact with, or very close to, the lower portion of the several saw-guide arms 5. The two bars 11 and 12^a have a connecting link 15 near one side of the machine extended below the lower bar to form a lever adapted to operate on a pivot 16. To the lower end of this link is pivoted a rod 17 extending laterally to the outside of the machine where it is pivoted to a lever 18 that is fulcrumed at 19 to a bracket 20. By this arrangement the operation of the lever 18 will cause the raising or lowering of the pivotally connected bar 12^a and a consequent movement of the saw guides. The movement of the lever in the direction and to the position indicated by dotted lines in Fig. 4, will lift the bar 12^a and cause the saw guides to swing upon their axis 6 to position indicated by the dotted lines in Fig. 1. Upon the return of the lever to position shown in Fig. 3 the saw guides will return to engagement with the saws by gravity. Various modifications in the structure of these devices, and the substitution of mechanical equivalents, will readily suggest themselves to the skilled mechanic; but what has been shown and described is deemed sufficient to fully set forth the principle of operation of the improvements sought to be claimed. The movement of this lever in outward direction will cause the bar 12^a to move lengthwise and laterally, as indicated in Fig. 5, and serve the purpose of lifting the saw-guides in the same manner as shown in the other figures. Various other modifica-

tions might be shown, but it is deemed unnecessary, as these sufficiently illustrate what is thought to be the principal of operation of the present improvements. To permit the
 5 saw-guides to be thus oscillated without interference with the saw-shifting levers 4, the latter are connected to them by means of oblong slots 26 into which lugs 27 on the hubs of the saw-guides extend. These lugs being
 10 shorter than the slots permit the guides to be turned, as indicated by the dotted and full lines in Figs. 1 and 2.

By the use of devices of the character set forth the delay and inconvenience commonly
 15 experienced in removing the guides from the saws and in returning them to engagement are obviated, and convenient and simple means for their operation are provided.

Having described my invention, what I
 20 claim is—

1. In a gang edger, the combination with a series of saws and shifting-levers; of a corresponding series of saw-guides connected with their respective shifting-levers by lugs and
 25 slots permitting oscillation of the guides; and a bar and levers for operating it to produce simultaneous oscillation of all the guides, substantially as set forth.

2. In a gang edger, the combination with a
 30 series of saws and shifting-levers; of a corresponding series of saw-guides on an arbor permitting them to slide or turn; a fixed bar on which the guides rest when in operative po-

sition; and a lifting bar pivotally connected to the fixed bar, and lever devices therefor, 35 whereby all the guides may be simultaneously lifted from contact with the saws, substantially as set forth.

3. In a gang-edger, the combination with a series of saws and shifting-levers; of a corresponding series of saw-guides arranged to
 40 slide and turn on an arbor and connected with their respective shifting-levers by lugs and slots permitting vertical oscillation of the guides; a fixed bar on which the saw-guides
 45 rest; and a lifting bar pivoted to the fixed bar, and suitable lever devices therefor, whereby all of the saws may be lifted by one operation, substantially as set forth.

4. In a gang-edger, the combination with an
 50 arbor and a series of saws arranged to slide thereon, and shifting levers for sliding them; of saw-guides connected with the several shifting levers by lugs and slots permitting vertical
 55 oscillation of the guides; a stationary device for holding the guides up to engaging positions; and a vertically movable horizontal bar, and means for operating it vertically to produce simultaneous upward oscillation of said guides to free them from engagement 60 with the saws, substantially as set forth.

CHARLES H. UPTON.

Witnesses:

P. H. GUNCKEL,
 R. BLUME.