No. 659,708.

Patented Oct. 16, 1900.

G. W. STETSON.

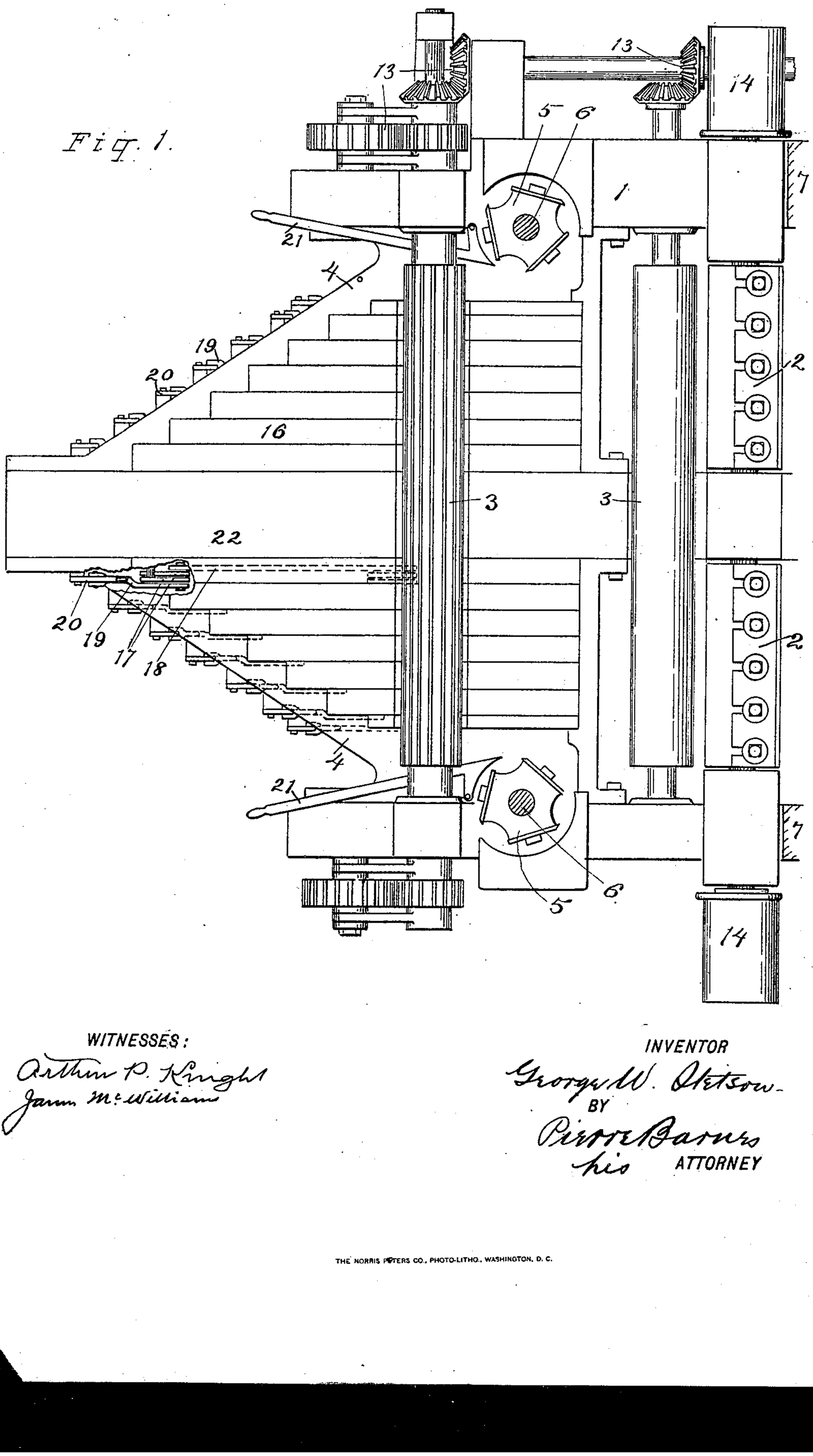
PLANER.

(Application filed June 29, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

Arthur P. Knight

James McWilliams

INVENTOR

George W. Stetson

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Pierce Barnes

his ATTORNEY

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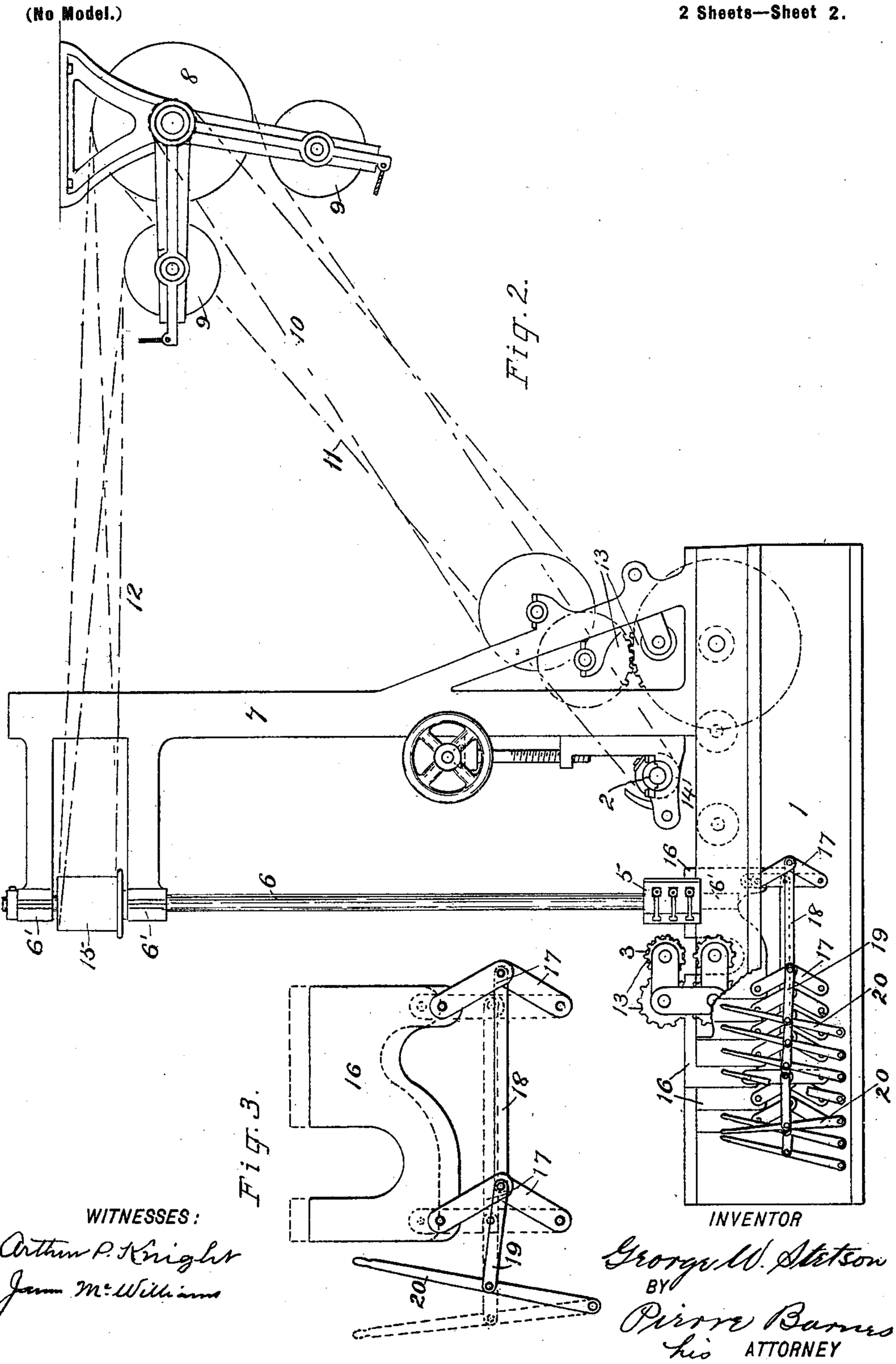

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE W. STETSON, OF SEATTLE, WASHINGTON.

PLANER.

SPECIFICATION forming part of Letters Patent No. 659,708, dated October 16, 1900.

Application filed June 29, 1900. Serial No. 22,085. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. STETSON, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Planers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in planers; and its object is to provide changeable gaging means to enable the machine to be quickly and accurately adjusted for sizing different widths of stock.

With the devices at present in use for adjusting the planer to different widths of stock it is generally requisite to stop the planer and shift the sizing cutter-head by an operation requiring considerable time and care to a different position. In consequence of the time required for this operation and the difficulty of getting the machine set back to the same adjustment when it is again needed it is has been considered necessary to avoid such changing over as far as possible by maintaining the machine on one size of work for a considerable time, such work as may come from the mill in the meantime of other sizes being stored temporarily until sufficient has accumulated to give an extended run of the planer. Such storing required considerable handling and transportation of the stock, which is dispensed with by my invention, as it enables the planer to be almost instantly changed to work to any standard width and successive lots of stock of different sizes, such as will usually be presented in the running of a mill, may be taken as they happen to come along without any necessity of selection or storage.

To this end I provide gaging means comprising a plurality of gage devices and means for bringing any one of such gage devices into operative position, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a plan view, partly broken away, of a portion of a planer provided with my invention. Fig. 2 is a side elevation of the planer, showing its driving mechanism somewhat diagrammatically; and Fig. 3 is a side elevation of one of the gage devices.

The planer may be, as regards the frame 1, horizontal cutter-heads 2, feed devices 3, and the driving mechanism, of any usual or suitable construction, it being preferable, however, to drive or belt the machine from above, as shown, thereby enabling the planer-bed 4 to be nearer the floor. The side cutter-heads 5 are carried by vertical spindles 6, supported in fixed bearings 6′ in the frame 1 and in vertical standards 7. An overhead driving-pulley 8, with belt-tightening devices 9, serves through belts 10 11 12 to drive the feed-gear 13, the pulleys 14 of the horizontal cutter-heads, and pulleys 15 on the upper ends of the vertical spindles 6, carrying the cutter-heads 5. The planer is shown with cutters arranged in duplicate on opposite sides, so as to work two pieces at once.

In the bed 4 on each side of the machine are arranged a plurality of gage devices consisting of gage blocks or frames 16, movable vertically, but fitting with one another and with the frame, so as to prevent horizontal displacement. These gage-blocks are spaced or positioned so that their faces which are directed toward the side cutter-heads are respectively at certain predetermined distances from the working line of the cutter-head corresponding to the standard sizes to be turned out. Each of these gage-blocks is supported by a system of levers, enabling it to be depressed until it is flush with or, if desired, below the surface of the bed 4 or to be raised or protruded above such surface, so as to serve as a guide or back support for the work. An advantageous construction is a toggle-joint support 17 for each end of the gage-block, pivoted at their lower ends to the machine-frame and at their upper ends to the block, while the centers or knees of the toggles are connected together by a link or bar 18 and to an operating-handle 20 by a rod or link 19. Levers 21 may be provided to force the work back to the gage-block in starting. By throwing all the handles 20 forward in the position shown in full lines in Fig. 3 all the gage-blocks will be depressed, so as to lie flush with the table, and the machine will then receive a board of the full width between the cutter-head and the central beam or rail 22 of the machine, which serves as a guide for the maximum width to be planed. If any smaller width is to be sized, then the corre-

sponding handle is pulled back into the position shown in dotted lines in Fig. 3, (and also in full lines for the third handle from the left in Fig. 2,) thereby elevating the corresponding gage-block into operative position to serve as a guide or back support for such narrower board. This adjustment may be effected instantly without stopping the machine, and different sizes may thus be handled in succession without loss of time. Moreover, whenever the machine returns to a given size the adjustment is practically identical, so that boards of the same nominal size will be as a matter of fact identical in width, although the machine may have turned out other sizes intermediately, a result that can hardly be accomplished even with the greatest care by the methods heretofore in use, as the setting of a piece of machinery to exact measured position is a difficult and uncertain matter.

What I claim, and desire to secure by Letters Patent, is—

1. In a planer, the combination with the planer-bed and a cutter-head, of a plurality of gage devices arranged in the planer-bed and movable vertically but guided so as to maintain definite distances from the cutter-head, of lever devices supporting said gage devices and a handle connected to each lever device.

2. In a planer, the combination with the planer-bed and a cutter-head, of a plurality of gage devices arranged in the planer-bed and movable vertically but guided so as to maintain definite distances from the cutter-head, of toggle devices supporting said gage devices and a handle connected to each toggle device.

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

GEORGE W. STETSON.

Witnesses:

CHARLES F. MUNDAY,

PIERRE BARNES.