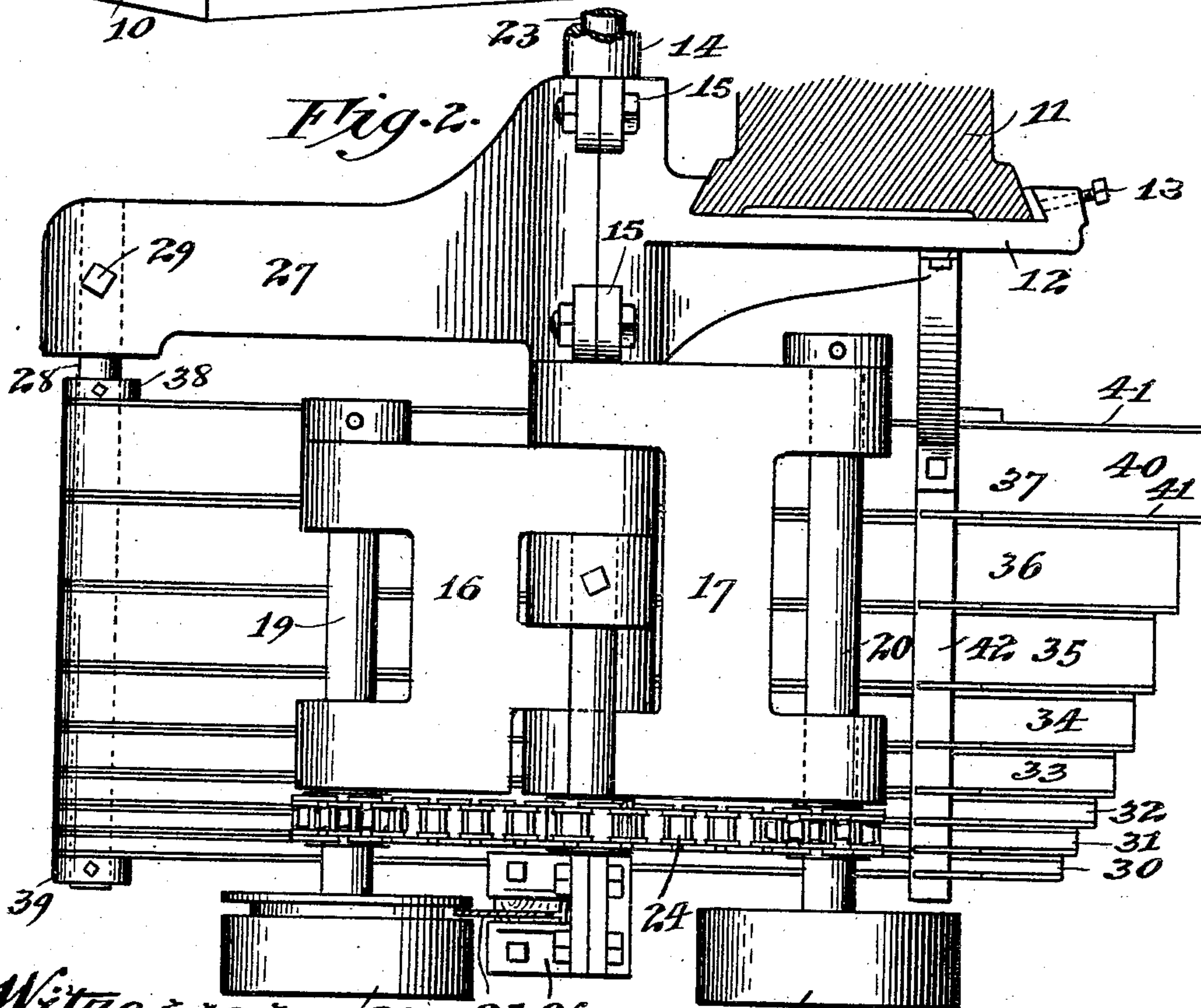
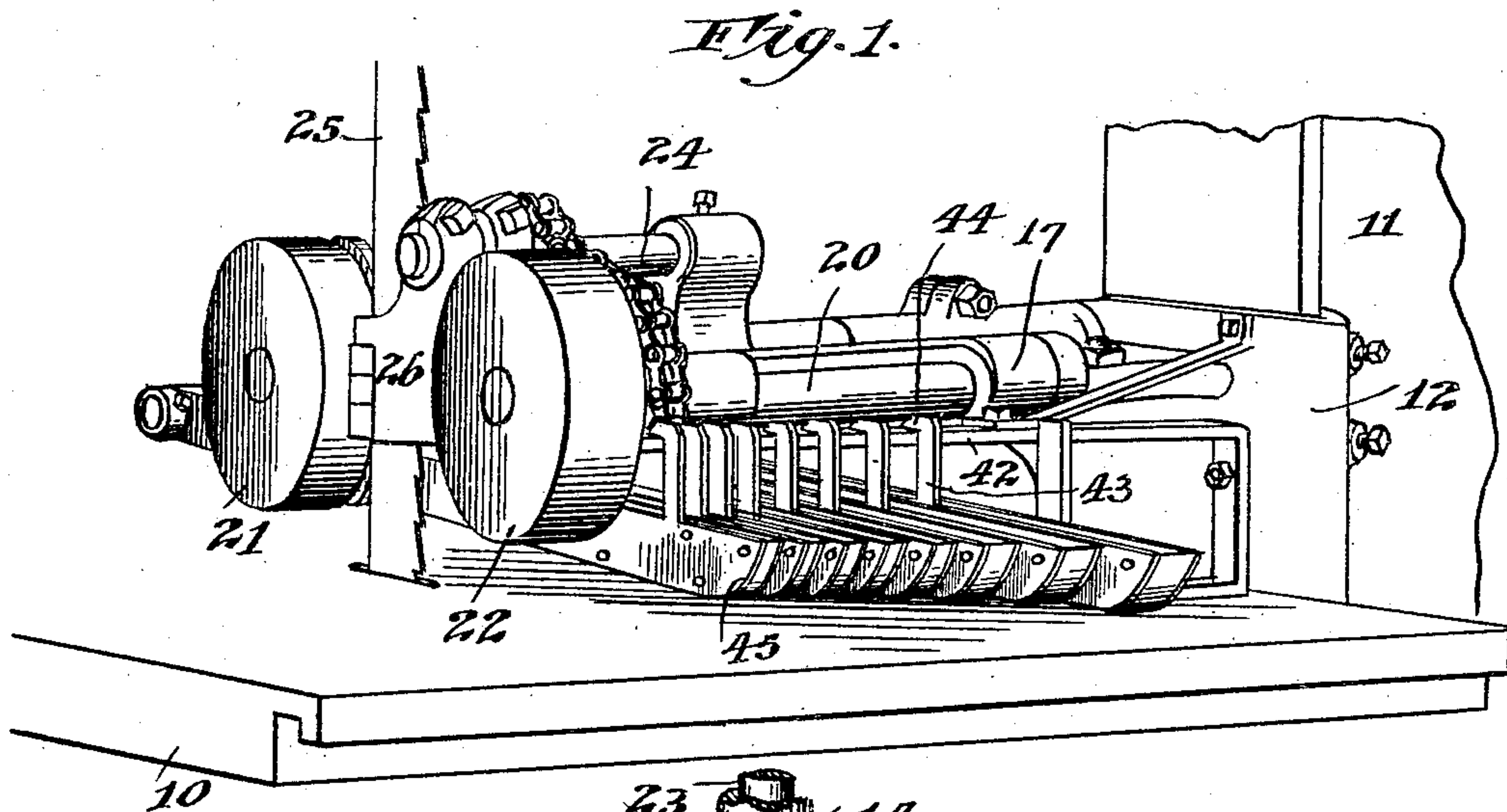


B. D. STEVENS.  
 MULTIPLE BOARD GAGE.  
 APPLICATION FILED MAR. 30, 1908.

908,513.

Patented Jan. 5, 1909.

2 SHEETS—SHEET 1.



Witnesses,  
 J. D. Mann,  
 Walter M. Fuller

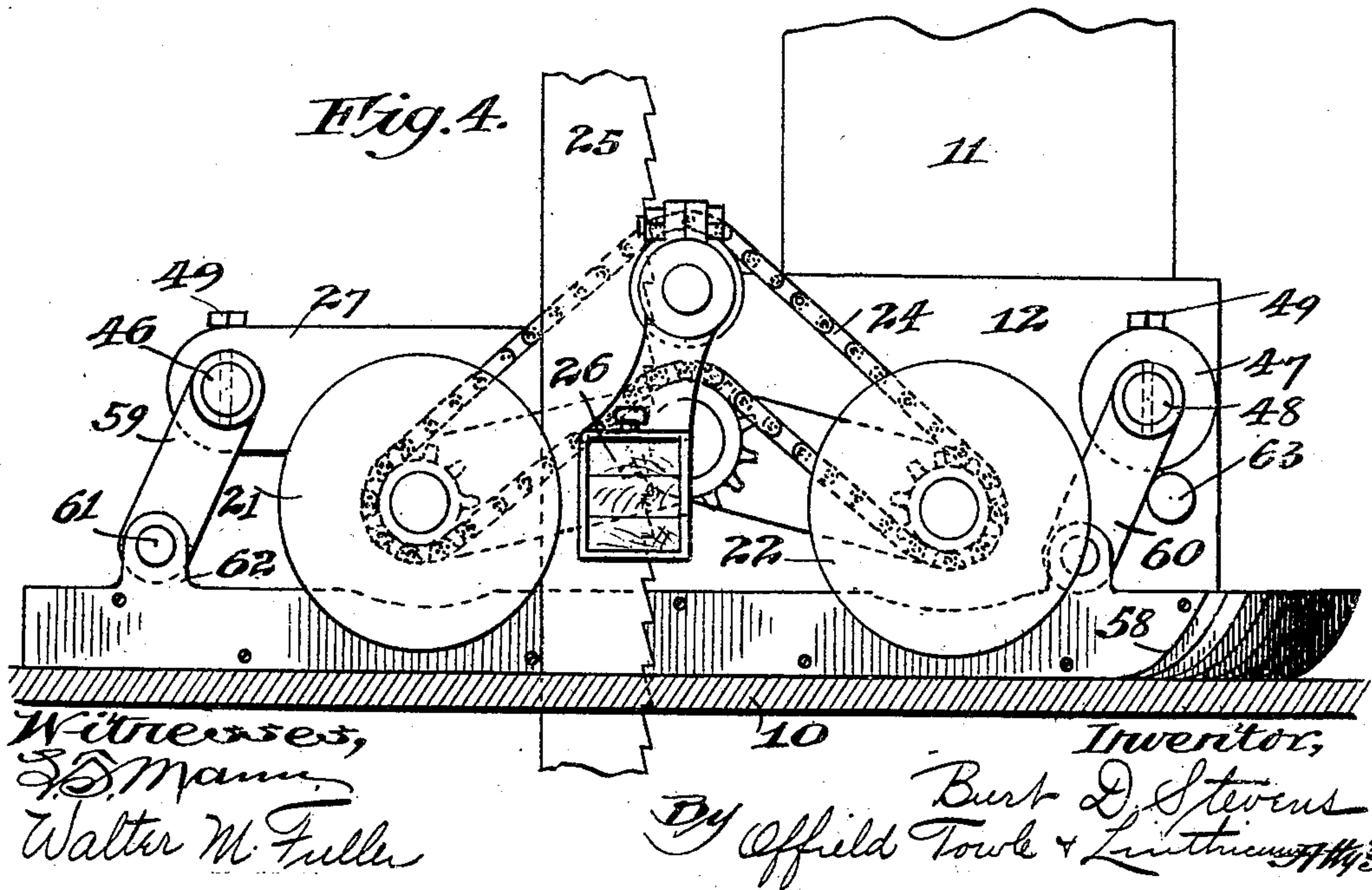
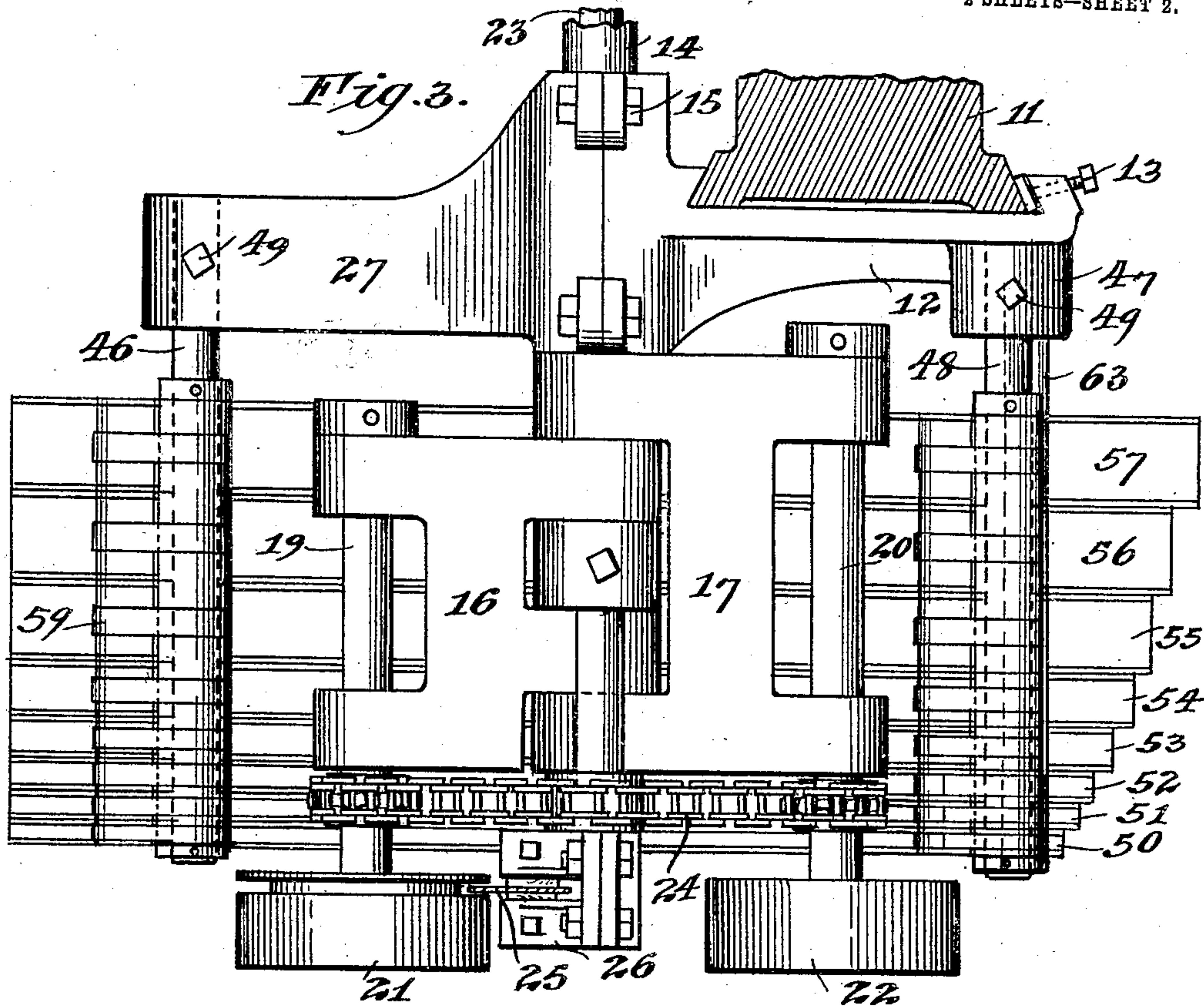
Inventor,  
 Burt D. Stevens  
 By *Offield Towle & Linthicum*  
 Attys.

B. D. STEVENS.  
 MULTIPLE BOARD GAGE.  
 APPLICATION FILED MAR. 30, 1908.

908,513.

Patented Jan. 5, 1909.

2 SHEETS—SHEET 2.





# UNITED STATES PATENT OFFICE.

BURT D. STEVENS, OF BELOIT, WISCONSIN, ASSIGNOR TO THE BERLIN MACHINE WORKS,  
OF BELOIT, WISCONSIN, A CORPORATION OF WISCONSIN.

## MULTIPLE-BOARD GAGE.

No. 908,513.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed March 30, 1908. Serial No. 424,210.

*To all whom it may concern:*

Be it known that I, BURT D. STEVENS, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Multiple-Board Gages, of which the following is a specification.

My invention has reference to multiple gages or guides for use with boards or the like to properly guide the same to a saw or other operating tool or implement as they are advanced by the feeding rollers, or manually.

My improved device is intended to avoid the necessity of adjusting the ordinary gage or fence when boards of different widths are produced or operated upon, whereby the workman's time is conserved. It is intended to provide a construction which will permit the operator to use any one of a number of gages or guiding bars without adjustment of any kind except that the board actuates one or more of the gages to render them temporarily inoperative. The workman merely starts the board under one or more gages and against the face of that one which he intends to use, and thereafter the board is properly guided and advanced to the saw. The novel and improved multiple gage comprises a plurality of vertically-movable gages or guide bars arranged side by side and preferably having their front ends arranged in stepped relation. The operator starts the board against the side of the gage or guide bar which he has selected to use and pushes it forwardly beneath the other gages between the selected one and the saw, the board passing beneath and raising these other gages or guides rendering them inoperative for the time being. As soon as the board has passed through the machine all the gages or guiding bars drop to operative position again ready for the next board.

On the accompanying drawings, which form a part of this specification and to which reference should be made in connection with the following detailed description, I have illustrated two desirable embodiments of my invention, and on these drawings,—Figure 1 is a perspective view of a portion of a band saw equipped with one form of my improved multiple board gage; Fig. 2 is a plan of the

mechanism shown in Fig. 1; Fig. 3 is a similar plan of a modified construction; and Fig. 4 is an end elevation of the embodiment of the invention illustrated in Fig. 3.

Referring first to Figs. 1 and 2, it will be apparent that I have illustrated my improved multiple gage in connection with a band saw having a table 10, a vertical column or post 11 forming a part of the frame of the machine, a vertically-adjustable roller-supporting bracket 12, whose position on the column or post 11 may be varied or changed, the bracket being held in place by one or more clamps 13. Passing through the bracket or support 12 is a sleeve 14 clamped in the support at 15. Hinged on this tubular sleeve is a pair of roll supports or carriers 16 and 17 in which are rotatably mounted the shafts 19 and 20 of the pair of feed rollers 21 and 22 driven from a shaft 23 located within the tube or sleeve 14 by means of a sprocket chain 24 and suitable sprocket wheels. The band saw proper 25 is equipped with a block 26, as is customary, between the feeding rollers 21 and 22.

Extended rearwardly from the bracket or support 12 I provide an arm 27 in a transverse aperture of which the end of a stationary shaft or rod 28 is rigidly fastened, either by means of a tight fit or by a set-screw or bolt 29. As is indicated in Fig. 2, the shaft 28 extends outwardly practically to the feed rollers and saw, and fulcrumed or rotatable on this shaft 28 I provide a plurality of gages or guide bars 30, 31, 32, 33, 34, 35, 36, and 37 held in place longitudinally on the shaft 28 by collars 38 and 39. Each of these guiding bars or gages has a central strip of wood 40 faced on either side by a metallic plate or strap 41. As is clearly illustrated, the gages are arranged side by side, in contact with one another, and spaced the desired distance from the saw blade 25. In order to limit the descent of these bars, I mount above them on the vertically-adjustable bracket or support 12 a stop bar 42, and cooperating with this bar I provide on each of the gages a finger having an upper end hook portion adapted, under normal conditions, to rest on the bar 42 and restrict the downward turning of the gages on the shaft 28. In



order that the boards may be more easily brought against the side or face of the selected guide bar, the forward ends of the bars or gages are arranged in stepped relation, the bar farthest from the saw projecting farthest forwardly, as is clearly shown.

The operation of this gage is substantially as follows: The bracket or support 12 and the rollers 21 and 22 carried thereby having been adjusted to the proper and desired position, a board is fed to the saw and is started against the projecting side face of the selected gage or guide bar, and is pushed forwardly manually beneath the other gages between the selected one and the saw until the feed roller 22 catches the board and completes the forward feeding, it being understood that all the gages between the selected one and the saw are lifted by the board and ride idly upon its top surface. As soon as the board has passed out of the machine all the gages drop to their original and normal position, this descent being limited by the fingers 43 cooperating with the stop-bar 42. In order to permit the board to readily pass beneath the front ends of the gages or guide bars, I have chamfered or curved these ends, as is indicated, at 45. It will be apparent that as the vertically-adjustable bracket or support 12 is brought to different adjusted positions the gage bars will be carried with it and will always be in proper operative position.

In the modification or different embodiment of my invention shown in Figs. 3 and 4 the band saw mechanism is substantially the same as that in Figs. 1 and 2, and I have supplied the parts with the same reference characters. At the rear end of the extension 27 I fix a stationary shaft 46 substantially like the shaft 28 and at the front end of the bracket 12, in a suitable boss 47, I fix the front stationary shaft 48, these shafts being parallel and held in their bearings by set-screws 49. As in the previous instance, I employ a plurality of gage or guide bars 50, 51, 52, 53, 54, 55, 56, and 57 having their front ends projected forwardly different distances, that is in stepped arrangement, each having a central filler of wood faced on opposite sides by metal straps or plates. As in the former instance, the front ends of these bars are chamfered or curved on their lower faces at 58 and each bar is connected to each of the shafts 46 and 48 by a short link 59 and 60, respectively, the upper ends of which are rotatable on the shafts, and the lower ends of which are rotatable on suitable pins 61 passed through apertures in ears 62 on the tops of the metal strips or plates at the sides of the gages. In order to limit and restrict the descent of the guide bars, I mount on the bracket below the shaft 48 a rod or bar 63

against which all of the links 60 may strike, limiting their forward swing.

Inasmuch as the operation of this form of device is substantially like that of the other species, it need not here be set forth in detail, but attention is directed to the fact that since in the lowered position of the gages the links 59 and 60 are inclined rearwardly to a considerable extent the gages readily rise to allow a board or the like to pass beneath them. As is apparent, this double link supporting arrangement for the bars is in reality a parallel motion mounting.

Although I have shown and described only two embodiments of this invention, it will be obvious to those skilled in the art that it is susceptible of other embodiments and therefore my invention is not limited and restricted to the precise structural details shown and described, because these can be varied within wide limits without departure from the essence and substance thereof.

I claim:

1. In a device of the character described, the combination of a plurality of movable gages arranged side by side the front ends of which project successively farther forward, whereby a board advanced to said gages may displace one or more of them and be guided by the next unmoved gage, substantially as described.

2. In a device of the character described, the combination of a plurality of hinged gages arranged side by side the front ends of which project successively farther forward, whereby a board advanced to said gages may pass beneath and raise one or more of said gages and be guided by the next unmoved gage, substantially as described.

3. In a device of the character described, the combination of a plurality of gages arranged side by side the front ends of which project successively farther forward, and a parallel motion mounting for each of said gages, whereby a board advanced to said gages may pass beneath and raise one or more of them and be guided by the next unmoved gage, substantially as described.

4. In a machine of the character described, the combination of a main frame, a support or bracket vertically adjustable thereon, one or more feed rollers carried by said support or bracket, and a multiple board gage mounted on said support or bracket and consisting of a plurality of movable gages arranged side by side, whereby a board advanced to said gages may displace one or more of them and be guided by the next unmoved gage, substantially as described.

5. In a device of the character described, the combination of a main frame, a support or bracket vertically-adjustable on said frame, one or more feed rollers mounted on said support or bracket, and a multiple



board gage carried by said support or bracket, said gage comprising a plurality of gages arranged side by side, a parallel motion mounting for each of said gages, and a  
5 stop to limit the descent of said gages, whereby a board advanced to said gages may displace one or more of them and be guided by the next unmoved gage, substantially as described.

BURT D. STEVENS.

Witnesses:

FREDERICK C. GOODWIN,  
WALTER M. FULLER.