

No. 674,466.

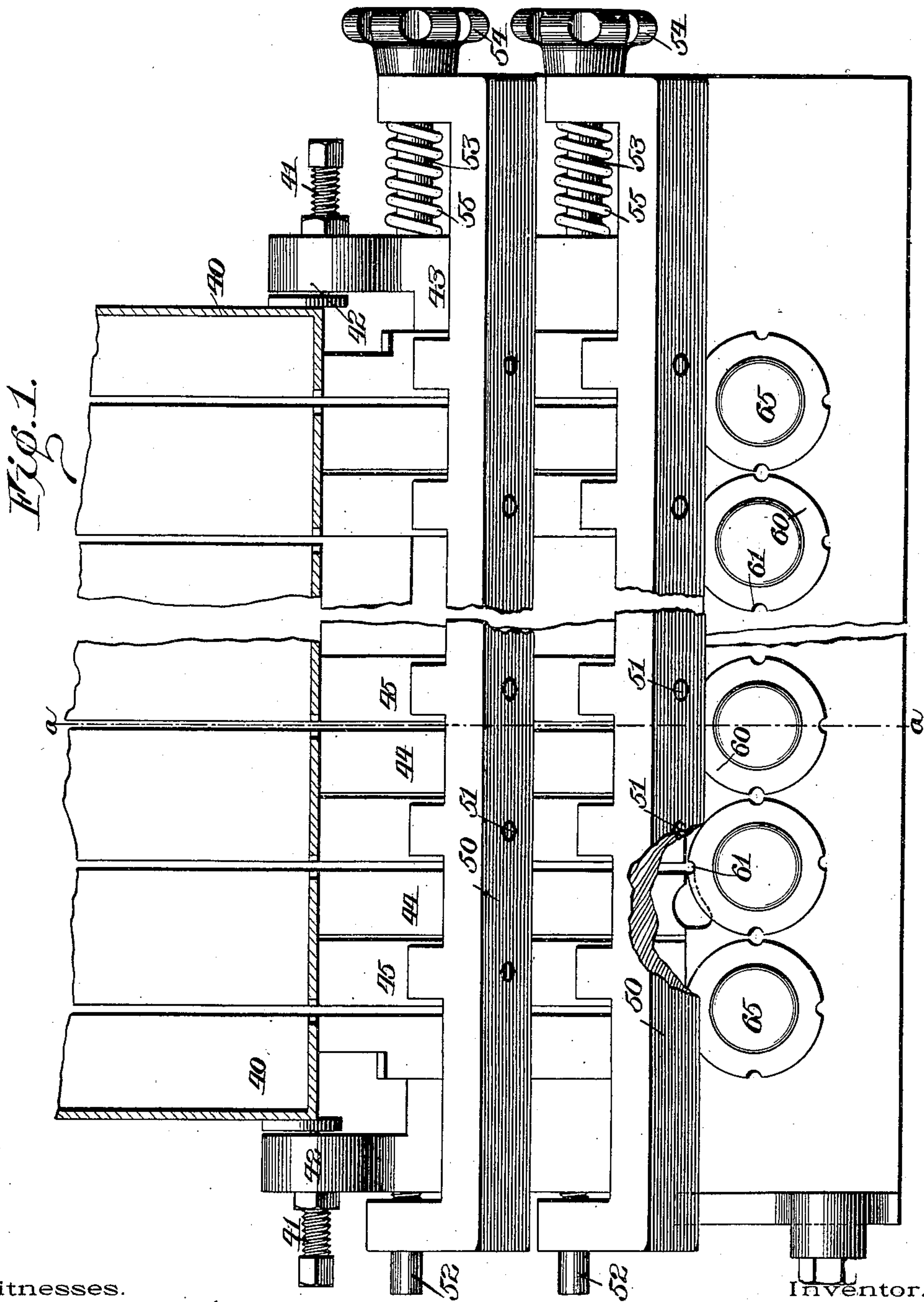
Patented May 21, 1901.

H. W. MORGAN.  
NAILING MACHINE.

(Application filed Mar. 7, 1901.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses.

Walter B. Payne.  
Gilliland Rich.

Inventor.

Henry Morgan  
by Frederick W. Church  
his Attorney.

No. 674,466.

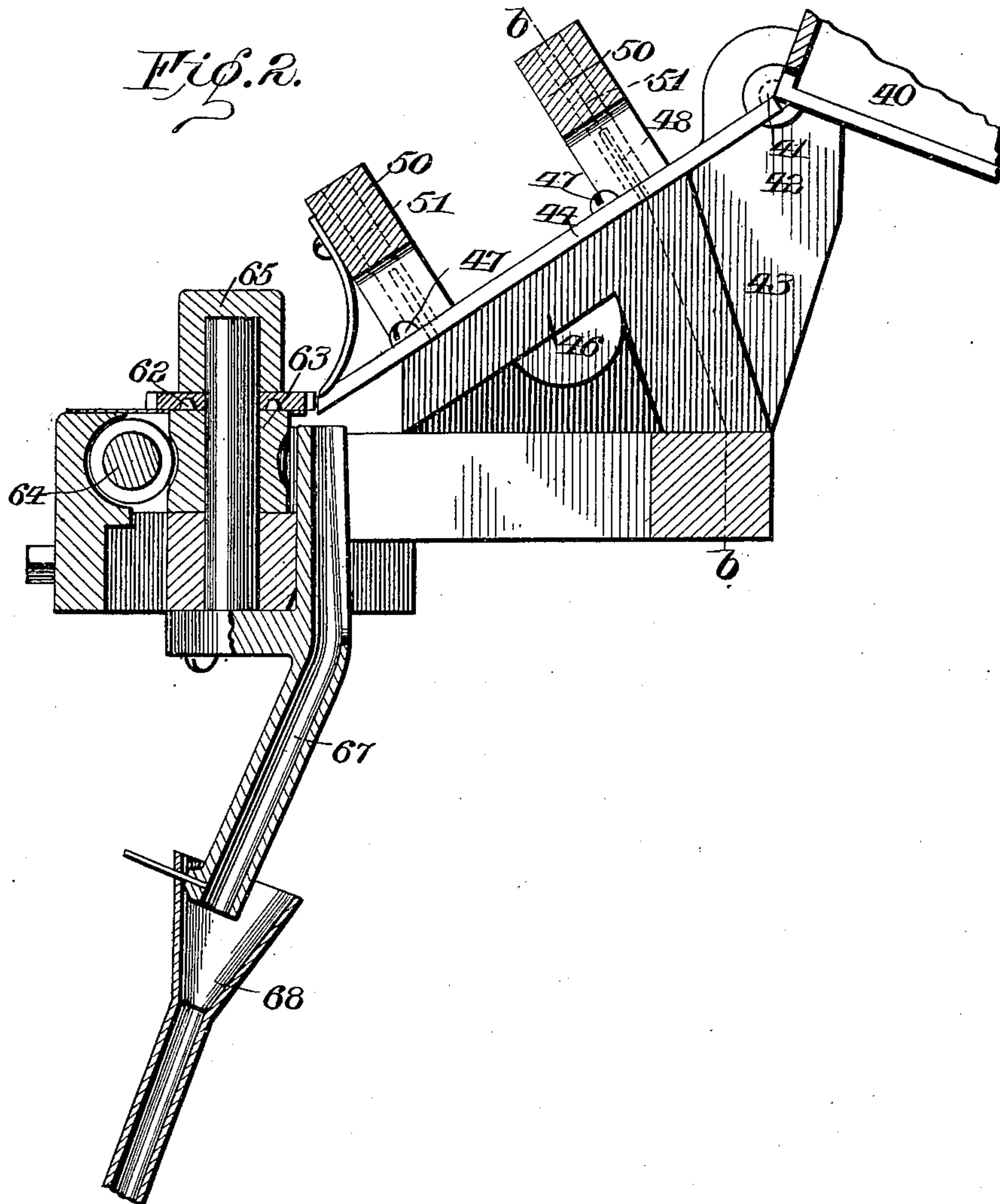
Patented May 21, 1901.

H. W. MORGAN.  
NAILING MACHINE.

(Application filed Mar. 7, 1901.)

(No Model.)

3 Sheets—Sheet 2.



Witnesses.

*M. B. Payne.*  
*G. Willard Rich.*

Inventor.

*Henry Morgan*  
*by Andrew Church*

Attorney.



No. 674,466.

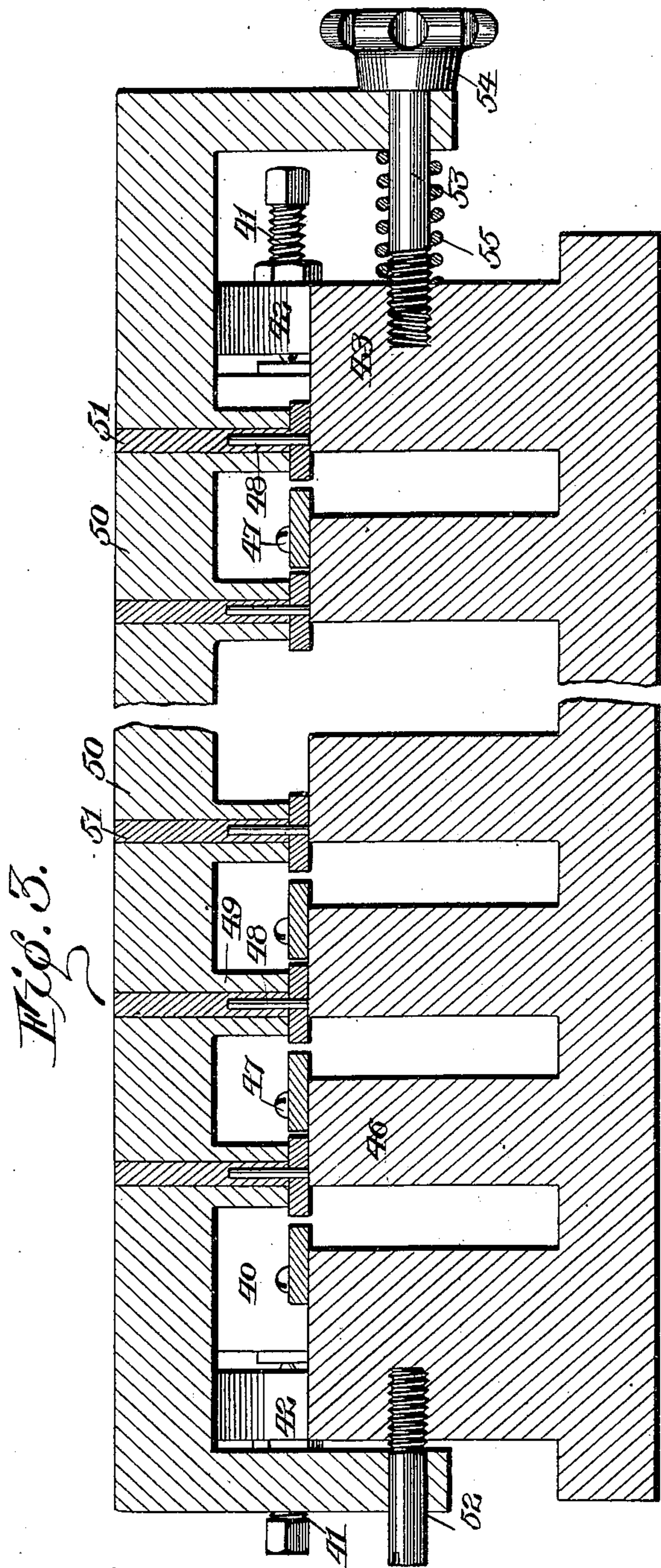
Patented May 21, 1901.

H. W. MORGAN.  
NAILING MACHINE.

(Application filed Mar. 7, 1901.)

(No Model.)

3 Sheets—Sheet 3.



Witnesses.

Walter B. Payne.  
G. Willard Rich.

Inventor.

H. W. Morgan  
by Frederick B. Church  
his Attorney.



# UNITED STATES PATENT OFFICE.

HENRY W. MORGAN, OF ROCHESTER, NEW YORK.

## NAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 674,466, dated May 21, 1901.

Original application filed March 10, 1899, Serial No. 708,585. Divided and this application filed March 7, 1901. Serial No. 50,152. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY W. MORGAN, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Nailing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to nailing-machines of the general type shown in my prior patent, No. 586,711 and specifically to the inclined track-plates or nail-reservoirs intervening between the nail-containing pan and the picking or separating device which feed the nails one at a time to the driving mechanism; and it consists in certain improved constructions and combinations of parts, whereby the machine may be readily adapted for operating upon nails having different-sized shanks or bodies and the adjustments of the nail-channels easily and readily accomplished, all as will be hereinafter fully described, and the novel features pointed out in the claims at the end of this specification.

This application is a division of my prior application filed March 10, 1899, Serial No. 708,585.

In the accompanying drawings, Figure 1 is a plan view of the upper portion of a nailing-machine of the type shown in my prior patent; Fig. 2, a vertical sectional view taken on the line *a a* of Fig. 1; Fig. 3, a longitudinal sectional view on the line *b b* of Fig. 2.

Similar reference-numerals in the several figures indicate similar parts.

Inasmuch as the present invention relates to only a portion of the machine I have only deemed it necessary to show the upper portion of a nailing-machine, 40 indicating the usual tilting nail pan or receptacle, pivoted upon screws 41, passing through ears or brackets 42, formed upon the upper frame or head block 43, which latter is secured to the top of the main frame or standard in the usual or any preferred manner. The bottom of the pan 40 is slotted, as usual, and the width of these slots is or may be adjustable by suitable devices, and said slots are adapted to coincide in posi-

tion with the nail-channels formed between stationary channel-plates 44 and movable or adjustable channel-plates 45, sliding loosely upon the upper ends of arms 46, formed upon or secured to the frame 43. The plates 44 are, as usual, inclined from the pan toward the picking or cutting-off devices and are secured to the upper ends of the arms 46 by screws 47, while the plates 45 slide upon the ends of said arms and are provided with bearing-pins 48, extending upwardly and into recesses formed in fingers 49 of the laterally-extending and independently-adjustable cross-bars 50. I employ two of these bars 50, one located near each end of the track-plates, and as a simple and cheap method of connecting them with the cross-bars without necessitating accurate machine-work the fingers and bars are provided with vertically-extending apertures, which may be formed therein in casting, and to assemble the parts it is only necessary to place the pins 48 in position in the adjustable track-plates and arrange these pins approximately in the center of the large apertures in the fingers, then pour in a filling of babbitt or similar material, (indicated by 51,) thus forming an antifriction-bearing for the pins; or, if desired, the pins may turn freely in the track-plates and be rigidly attached to the bars. The bars 50 are each provided with downwardly-extending perforated ends, and through one end of each bar extends a stationary guide pin or screw 52, tapped or otherwise secured in the frame 43, while through the apertures in the other end extend adjusting-screws 53, having hand-wheels 54 at the outer ends engaging the outer sides of the ends of said bars. Springs 55, encircling the screws, are arranged between the ends of the bars 50 and the frame 43, so as to move the bars in one direction in opposition to the movement imparted by the screws 53. As the bars 50 are arranged near the upper and lower ends of the track-plates and are independently adjustable, it will be seen that the width of one of the ends of each of the nail-channels may be adjusted simultaneously, and by the separate adjustments of the two bars the track-plates may be either kept absolutely parallel or the upper ends of the channels may be slightly wider, if desired,



to insure the proper engagement and flow of the nails from the slots in the bottom of the pan. The manner shown of providing the pivotal connection of the channel-plates with the cross-bars not only cheapens the cost of production, but insures a tight bearing without special fitting, and as the bars have a positive connection with the track-plates their adjustment in one direction is accomplished by the springs and in the opposite direction by the screws.

The device for picking or selecting the nails from the lower ends of the nail-channels may be of any suitable construction; but I prefer to employ devices substantially such as shown in my prior patent referred to, 60 indicating the disks, having notches 61 in their edges and having recesses in their under sides, with which cooperate projections 62, formed on worm-wheels 63, meshing with a worm-shaft 64, driven intermittently by suitable operating devices, the disks being held in driving connection with the worm-wheel by suitable weighted caps 65, extending over the ends of the studs, as shown in Fig. 2, and the nails are, as usual, picked off from the lower ends of the channels one at a time by the disks 60 and delivered into chutes 67 and from thence pass into spouts 68, which convey them into the driving-chucks in the usual manner—such, for instance, as described in my prior patent referred to.

I claim as my invention—

1. In a nailing-machine, the combination with a support and the stationary inclined track-plates thereon, of the adjustable inclined track-plates, and the two independently-adjustable cross-bars and each pivotally and positively connected to the adjustable track-plates to cause the positive and separate adjustment of their ends.

2. In a nailing-machine, the combination with a frame or support, a pivoted tilting nail-pan having the slotted bottom, of the pairs of inclined track-plates forming nail-channels between them, one plate of each pair being secured rigidly to the support, and the other adjustable relative thereto, the two independent cross-bars pivotally connected to the movable track-plates, and means for adjusting said bars independently.

3. In a nailing-machine, the combination with a frame or support, the pairs of inclined track-plates forming nail-channels between them, one plate of each pair being rigidly secured to the frame, and the other plate being adjustable, of the two cross-bars, the pivot-pins extending transversely of the plates near opposite ends thereof connecting them with the bars, and means for independently adjusting said bars longitudinally.

4. In a nailing-machine, the combination with a frame or support, the stationary track-plates secured thereto, and the adjustable track-plates sliding on the support, of the two independently-adjustable cross-bars having the recesses therein, the pins secured to the adjustable track-plates and turning in the recesses in the bars, and means for adjusting the cross-bars independently.

5. In a nailing-machine, the combination with a frame or support, of the pairs of relatively adjustable, track-plates thereon, one of the plates of each pair having the stationary pins near opposite ends, the cross-bars having the apertures, and the bushings in said apertures forming a bearing for the pins on the movable track-plates.

HENRY W. MORGAN.

Witnesses:

G. WILLARD RICH,  
ELIZABETH J. PERRY.