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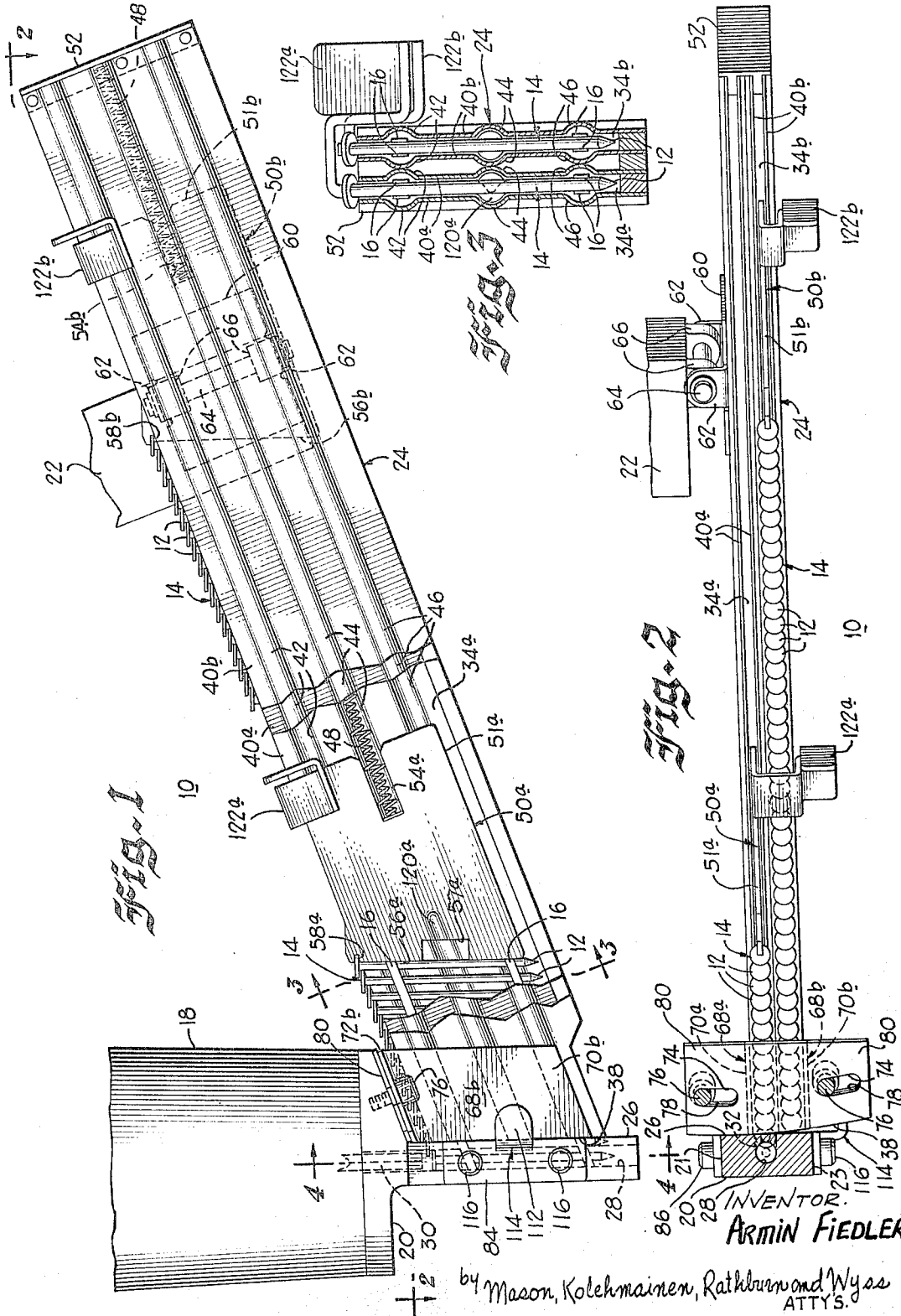
A. FIEDLER

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FASTENER DRIVING APPARATUS

Filed Oct. 14, 1964

2 Sheets-Sheet 1



INVENTOR: ARMIN FIEDLER
by Mason, Kolehmainen, Rathburn and Wyss
ATTYS.

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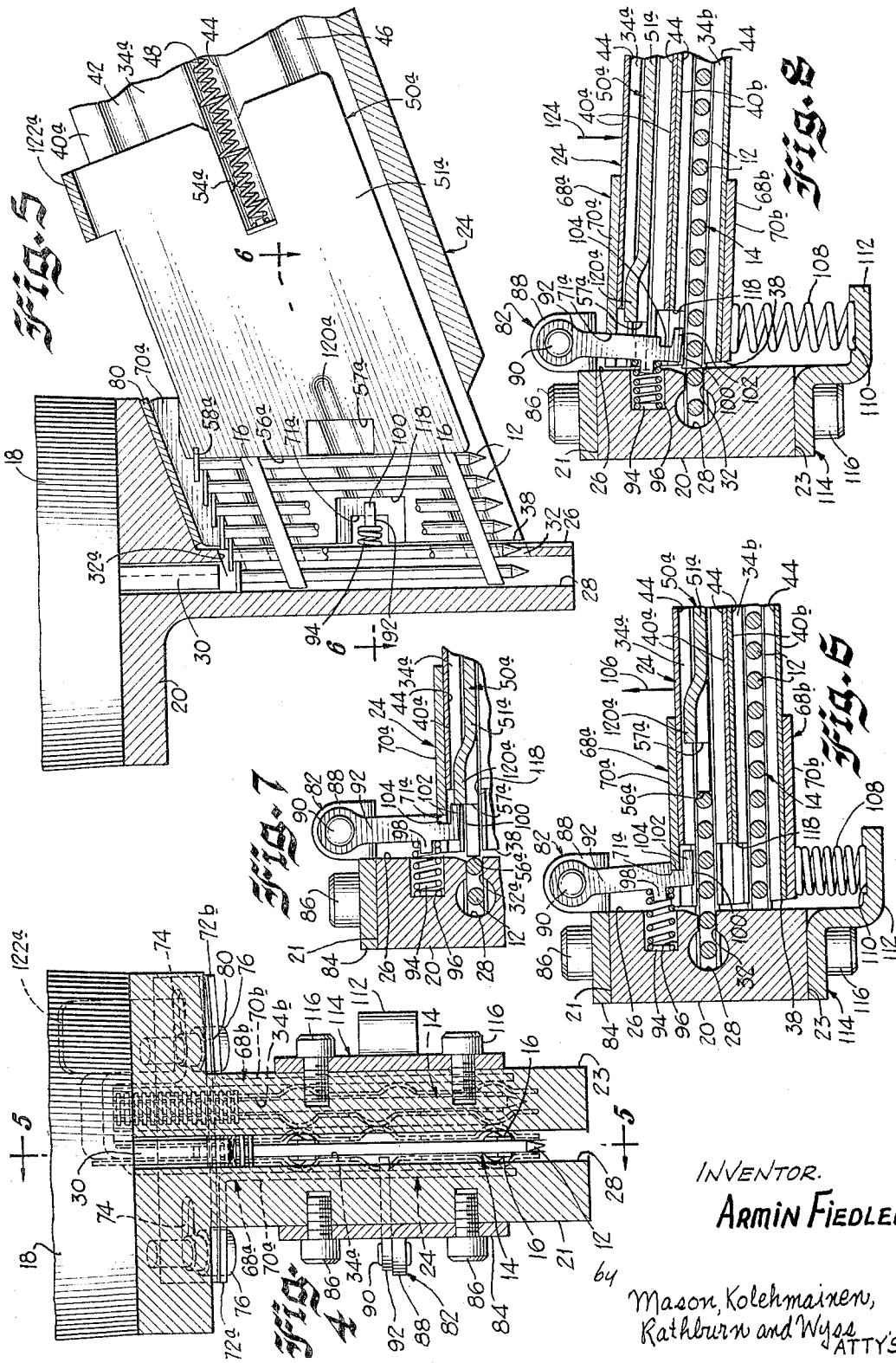
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FASTENER DRIVING APPARATUS

Armin Fiedler, Chicago, Ill., assignor to Fastener Corporation, Franklin Park, Ill., a corporation of Illinois
Filed Oct. 14, 1964, Ser. No. 403,885
12 Claims. (Cl. 227-120)

The present invention relates to fastener driving apparatus and more particularly to portable fastener driving tools which are electrically or pneumatically powered for driving relatively large fasteners, such as common nails.

In fastener driving tools of the type described above, it is desirable to provide a tool that will hold a large number of fasteners in the magazine thereof so that the tool may be operated to drive a maximum number of these fasteners before refilling the tool magazine with a new supply of fasteners. With tools of this type for driving relatively large fasteners, such as 8d common nails and the like, it has been a problem to provide a magazine assembly which would hold a large number of these nails and which was still small enough and light enough in weight so that the tool was not cumbersome and awkward to handle.

Accordingly, it is an object of the present invention to provide a new and improved fastener driving tool of the type described.

Another object of the present invention is the provision of a new and improved magazine assembly for holding a large supply of fasteners and feeding them to a tool of the type described for driving thereby.

More specifically, it is an object of the present invention to provide a new and improved magazine assembly for a fastener driving tool of the type described which is capable of holding a large supply of relatively large fasteners while being relatively small in size and weight to permit easy handling and positioning of the tool.

Yet another object of the present invention is the provision of a new and improved magazine assembly of the type described adapted to hold a large supply of fasteners carried on strips and to feed successive fasteners of the strips into the drive track of the tool for driving therefrom.

Still another object of the invention is the provision of a new and improved magazine assembly of the type described which is provided with a plurality of guideways for holding strips of fasteners and which is selectively movable relative to the driving tool to feed first from one of the guideways and then from the other guideways.

Yet another object of the present invention is to provide a new and improved magazine assembly for a fastener driving tool.

Still a further object of the invention is the provision of a magazine assembly having a plurality of guideways and means for automatically moving the assembly to feed fasteners from a second guideway after exhaustion of the fasteners from a first guideway without interruption in the feeding of the fasteners.

A further object of the invention is to provide a new and improved magazine assembly of the type described having a plurality of guideways disposed in side-by-side relation and means for first feeding fasteners from one guideway until exhausted and then slidably moving the assembly into a position for feeding fasteners from a second guideway.

A still further object of the present invention is the provision of a new and improved magazine assembly of the type described having plural side-by-side guideways and means responsive to the presence of fasteners in one of the guideways for maintaining that guideway in feeding position until the fasteners are exhausted and then moving the assembly to position the other guideway in a fastener feeding position.

2

Yet another object of the present invention is the provision of a new and improved magazine assembly having a plurality of fastener feeding guideways and constructed for pivotal movement relative to the driving tool to selectively align first one and then another guideway into feeding alignment with the drive track of the driving tool.

Yet a further object of the present invention is the provision of a new and improved fastener feeding assembly of the type described having a plurality of longitudinal fastener guideways adapted to receive strips of interconnected fasteners and feed the fasteners successively into the fastener driving tool in synchronism with the driving strokes thereof.

The foregoing and other objects and advantages of the present invention are accomplished by the provision of a new and improved fastener driving tool including a drive track with a driver slidable therein for driving fasteners and a magazine assembly for holding a supply of fasteners and feeding them successively into the drive track. The magazine assembly includes a plurality of fastener guide means for receiving strips of connected fasteners and guiding them into the drive track of the tool. The guide means are disposed in side-by-side relation and have spaced apart open forward ends adapted to communicate with the drive track when each of the respective guide means is selectively aligned therewith. In order to move the magazine assembly to feed the fasteners from first one and then another of the guide means into the drive track without interruption, means is provided responsive to the presence of fasteners in one of the guide means of the magazine assembly to automatically move the assembly to position another guide means in feeding alignment with the drive track when the supply of fasteners is exhausted from the one guide means.

Many other objects and advantages of the present invention will become apparent from considering the following detailed description in conjunction with the drawings, in which:

FIG. 1 is a fragmentary side elevational view in partial section of a fastener driving tool having a magazine assembly constructed in accordance with the present invention;

FIG. 2 is an elevational view of the magazine assembly of FIG. 1 taken along line 2-2 of FIG. 1;

FIG. 3 is a sectional view taken along line 3-3 of FIG. 1;

FIG. 4 is another sectional view taken along line 4-4 of FIG. 1;

FIG. 5 is a partial sectional view taken substantially along line 5-5 of FIG. 4;

FIG. 6 is a sectional view taken along line 6-6 of FIG. 5 illustrating the magazine assembly in one operative position wherein fasteners are fed into the drive track of the tool from one of the fastener containing guideways of the magazine;

FIG. 7 is a sectional view similar to FIG. 6 showing the assembly after exhaustion of the fasteners from one of the guideways of the magazine and illustrating a mechanism for moving another guideway into feeding position with the drive track; and

FIG. 8 is a sectional view similar to FIG. 6 showing the magazine assembly in another operative position in which fasteners are fed into the drive track of the tool from a second guideway of the magazine.

Referring now more specifically to the drawings, therein is illustrated a fastener driving tool 10 of the portable or hand operated type which preferably is powered by pneumatic or electrical means (not shown) to drive large fasteners 12, such as 8d common nails and the like, which are fastened together into strips or sticks 14 by means of transversely extending, flexible carrier strips 16. The

strips or sticks 14 of fasteners and the method for preparing the assemblage thereof are more fully described in the copending application of William H. Baum et al., Serial No. 313,511, filed October 3, 1963, which application is assigned to the same assignee as the present invention. However, the present invention can be utilized for driving other types and assemblages of fasteners and is not limited to use with only the type of fasteners disclosed in the Baum et al. application.

The driving tool 10 includes a frame with a depending lower forward end portion 18 on which is mounted a nosepiece 20 and a depending rearward portion 22 which provides a support for a rear portion of a magazine assembly indicated generally as 24. The nosepiece 20 is provided with a flat rear face 26 and a centrally disposed drive track 28 in which a driver or driving element 30 is disposed for sliding movement to drive fasteners positioned in the track.

In order that the fasteners 12 may be fed into the drive track 28, the nosepiece 20 is provided with a fastener feed opening 32 which communicates with the drive track 28 and the rear face 26 of the nosepiece 20. The feed opening 32 is slightly larger than the diameter of the shanks of the nails 12 and is provided with enlarged portions for accommodating the flexible strips 16 on either side thereof and an enlarged top portion 32a (FIG. 5) for accommodating the heads of the fasteners as they are moved into the drive track.

In accordance with the present invention, the magazine assembly 24 is provided with a pair of longitudinally extending guideways 34a and 34b for guidably supporting the fastener shanks so that the fasteners may be moved forwardly into the feed slot 32 of the nosepiece assembly and into the drive track 28. The guideways 34a and 34b are arranged in parallel, side-by-side relation and extend from a rearward end of the magazine assembly 24 to a forward end face 38 which is in juxtaposition with the rear face 26 of the nosepiece. Each of the guideways 34a and 34b is formed with a pair of opposed facing side walls 40a and 40b, respectively. The side walls are preferably formed of sheet metal or the like, and each is formed with a plurality of outwardly extending longitudinal flutes 42, 44 and 46 therein. The upper and lower flutes 42 and 46, respectively, on opposing walls 40a and 40b of each guideway form longitudinally extending recesses along the length of the magazine assembly to accommodate the strips 16. The central flutes 44 on opposed side walls 40a and 40b of each guideway form longitudinally extending central recesses or guides for accommodating longitudinally extending biasing springs 48 which springs forwardly bias respective fastener pushers 50a and 50b, having enlarged, plate-like fastener engaging main portions 51a and 51b slidably disposed within the respective guideways 34a and 34b.

The springs 48 are engaged between a rearward end member 52 of the magazine assembly 24 and rearwardly facing slots 54a and 54b (FIG. 1) formed in the respective plate-like main portions 51a and 51b. The action of the springs 48 continuously biases the pushers forwardly in their respective guideways to move the strips or sticks 14 of the fasteners 12 forwardly to feed the fasteners successively into the feed slot 32 of the drive track 28.

The plate-like main portions 51a and 51b of the pusher members 50a and 50b (FIG. 1) are provided with forward leading edges 56a and 56b, respectively, which are adapted to engage the rearward ones of the nails 12 in the strips 14, and slots 58a and 58b are formed in the leading edges 56a and 56b, respectively, to accommodate the heads of these nails 12 and thereby prevent the strips from moving upwardly out of their respective guideways. It should be noted that the upper end of the guideways 34a and 34b are open so that the fastener strips 14 can be placed therein from the top of the magazine assembly and once the strips are inserted into the guideway they are secured therein against upward movement by the

engagement of the heads of the rearward nails of the strip within the slots 58a and 58b.

Rearwardly of the forward end face 38 of the magazine assembly 24, there is provided a mounting bracket 60 secured to the outer surface of the outer wall 40a of the guideway 34a, which bracket is provided with outwardly extending upper and lower tabs 62 through which is journaled a pivot pin 64. The pin 64 is likewise journaled to extend through laterally disposed bosses 66 which are formed on the depending end portion 22 of the tool, thus allowing the magazine assembly 24 to pivotally move with respect to the tool about the axis of the pin 64.

The forward end of the magazine assembly 24 is in confronting relation to the rearward face of the nosepiece 20 and is curved to accommodate the pivotal movement of the magazine assembly, as shown in FIG. 2. On opposite sides of the magazine assembly 24 at its forward end, there are provided reinforcing bracket members 68a and 68b having upwardly extending side legs 70a and 70b which are spot-welded or otherwise secured to the outer surfaces of the outer side walls 40a and 40b of the respective guideways 34a and 34b. The bracket members 68a and 68b are each provided with outwardly extending top flanges 72a and 72b formed at the upper ends of the legs 70a and 70b respectively, and these top flanges are provided with slots 74 which slidably accommodate upwardly extending pins 76 which are threaded into the forward end portion 18 of the tool. The pins 76 extend through the slots 74 and aligned slots 78 formed in a lateral cross plate 80 which is secured to the forward end portion 18 of the tool and disposed to overlie the upper surfaces of the flanges 72. The engagement between the pins 76 and the slots 74 in the flanges 72a and 72b limits the lateral sliding movements of the forward end of the magazine assembly 24 relative to the nosepiece 20 between a first position wherein the guideway 34a is aligned with the feed slot 32 of the nosepiece and a second position wherein the feed slot 34b is aligned with the feed slot 32 of the nosepiece. Thus, the magazine assembly 24 is pivotally movable about the axis of the pivot pin 64 so that the forward end face 38 will move laterally with respect to the feed slot 32 to align therewith first one and then the other of the guideways 34a and 34b.

In order to maintain the magazine assembly 24 in its first position with the right-hand guideway 34a in alignment with the feed slot opening 32 of the nosepiece so that nails in this guideway can be directed into the feed slot by the action of the pusher 50a, there is provided a latching mechanism generally indicated by the numeral 82 and clearly shown in FIGS. 6, 7, and 8 of the drawings. The latching mechanism 82 includes a mounting bracket 84 which is secured to a right-hand edge face 21 of the nosepiece 20 by means of cap screws 86, as shown in FIGS. 4, 6, 7, and 8. The bracket 84 further includes a rearwardly extending leg 88 on which is journaled a pin 90 with the axis thereof disposed in parallel relation to the axis of the drive track 28. The pin 90 carries a pivotally movable latch member 92 which extends inwardly therefrom toward the magazine assembly 24. The inwardly extending end of the latch 92 is normally biased rearwardly by a spring 94 disposed within a recess 96 formed in the rear face 26 of the nosepiece. The latch 92 includes a forwardly extending projection 98 for centering the rearward end of the biasing spring 94 to maintain the rearward end of the spring in engagement with the latch 92. The latch 92 further includes an end face 100 formed on a rearwardly projecting tip 102 at the free end of the latch. The tip 102 forms one side wall of an adjacent rearwardly facing notch 104 which is adapted to be engaged by a forward edge of the bracket leg 70a on the right-hand side of the magazine assembly 24, when in the assembly position shown in FIG. 6.

Referring more specifically to FIG. 6, when the latch 92 is biased rearwardly by the spring 94 to the position shown therein, the rearwardly facing edge of the notch

104 engages the forward edge of a notch 71a (see FIG. 5) formed in the bracket leg 70a on the magazine assembly 24, and thus because of the engagement between the latch 92 and the bracket 70a the forward end of the magazine assembly is positively maintained in the first position against lateral movement so that the guideway 34a is maintained in correct feeding alignment with the drive track 28 whereby nails 12 may be fed from the guideway 34a directly through the feed opening 32 into the drive track by the action of the pusher 50a.

In order to move the latch 92 forwardly so that the notch 104 thereof is no longer engaging the bracket leg 70a and hence allow shifting of the magazine assembly 24 to the second feeding position, the pusher 50a is provided with a forwardly extending laterally displaced finger 120a, the forward end of which is disposed to engage the rearward projecting tab 102 of the latch 92 when the pusher approaches a full forward position wherein the last nail 12 in the guideway 34a is moved into the feed slot 32.

The feeding springs 48 are somewhat stronger than the biasing spring 94 so that forward movement of the latch member 92 is readily accomplished by the finger 120a of the pusher 50a upon approaching the full forward position wherein all of the nails have been exhausted from the guideway 34a. Consequently, as the last nail is exhausted from the guideway 34a, the pusher 50a moves the latch forwardly, and then a spring 108 automatically moves or shifts the forward end of the magazine assembly 24 laterally in the direction of the arrow 106 to the second position (FIG. 8) wherein the second guideway 34b can feed directly into the drive track without interruption in feeding of nails from the magazine assembly to the drive track.

When the free end of the latch 92 is moved forwardly toward the rear face 26 of the nosepiece 20 to the position shown in FIGS. 7 and 8 against the bias of the spring 94, the forward end of the magazine assembly 24 is then free to move laterally in the direction shown by an arrow 106 (FIG. 6) to a second position wherein the second guideway 34b is aligned with the drive track 28 and feed opening 32 of the nosepiece 20.

In order to move the forward end of the magazine assembly 24 in the direction indicated by the arrow 106 to align the second guideway 34b with the drive track 28, there is provided a biasing spring 108, the inner end of which bears against the bracket leg 70b on the left-hand side of the magazine assembly 24 (FIGS. 6 and 8). The outer end of the spring 108 is secured within a recess 110 provided in a rearwardly extending portion 112 of a side bracket 114 secured to an opposite edge face 23 of the nosepiece 20 by means of a plurality of cap screws 116. Thus, the spring 108 continuously urges the forward end of the magazine assembly 24 in the direction of the arrow 106 toward the second position wherein the guideway 34b is aligned with the drive track 28 of the nosepiece assembly.

When the latch 92 is in its rearward position, as shown in FIG. 6, the notch 104 thereof securely maintains the forward end of the magazine assembly in the first position wherein the right-hand guideway 34a is aligned to feed fasteners 12 into the drive track 28 and the spring 108 is ineffectual to move the forward end of the magazine assembly in the direction of the arrow 106 to the position shown in FIG. 8. When in this position, the upper ends of the slots 74 (as viewed in FIG. 2) of the brackets 68a and 68b bear against the pins 76.

When the latch member 92 is then moved forwardly by the pusher 50a upon exhaustion of the nails from the guideway 34a, the bracket leg 70a on the right side of the forward end of the magazine assembly 24 no longer is engaged within the notch 104 of the latch member, and the spring 108 can then move the forward end of the magazine assembly laterally as indicated by the arrow 106 to the second feeding position wherein the second

guideway 34b is aligned with the drive track 28, as shown in FIG. 8. When in this second feeding position (FIG. 8), the lower ends of the slots 74 (FIG. 2) in the brackets 68a and 68b bear against the pins 76 and consequently limit the movement of the magazine assembly in the direction of the arrow 106 to insure positive alignment of the second guideway 34b with the feed opening 32. It should also be noted that the walls 40a and 40b of the respective guideways 34a and 34b are provided with forwardly opening notches 118 (See FIG. 5) to allow free movement of the latch 92 so that it will not interfere with the shifting of the magazine assembly 24 from the first to the second feeding position. Also, the forward edge 56a of the pusher 50a is notched as at 57a so that there is no interference between the pusher and the latch 92 which would hamper the shifting of the magazine assembly.

The forward edge of the finger 120a is spaced rearwardly from the leading edge 56a of the pusher 50a so that it will engage the projecting tab 102 of the latch 92 only as the last nail has been moved out of the guideway 34a into the feed opening 32. Accordingly, the cooperating elements of the pusher 50a and the latch mechanism 92 provide means for positively maintaining the first guideway 34a in a first feeding position with respect to the drive track 28 until the fasteners 12 therein are exhausted and for then allowing the magazine assembly 24 to be moved laterally in the direction of the arrow 106 by the spring 108 so that the second guideway 34b is in feeding alignment with the drive track. The magazine assembly 24 is maintained in this second position by the spring 108 and the engagement of the pins 76 within the slots 74.

Accordingly, the magazine assembly 24 is capable of holding at least twice as many fasteners as a normal magazine having a single guide track, and the interval of time between refills is consequently reduced by half. Also, very little increase in the bulk or the size of the magazine assembly is necessary with this arrangement. Further, the guideways 34a and 34b preferably are disposed in a parallel configuration, as shown, to provide a minimum transverse dimension for the magazine assembly.

The pushers 50a and 50b are provided with handles or grips 122a and 122b which extend upwardly from the respective guideways and across the tops thereof toward a common side of the magazine assembly 24. These handles 122a and 122b provide a visual indication of the quantity of fasteners remaining in each of the respective guideways 34a and 34b at any time during operation of the tool. Consequently, when both of the handles 122a and 122b are positioned together adjacent the forward end of the magazine assembly 24, the operator can readily see that all of the fasteners 12 in the magazine assembly 24 have been exhausted.

After exhaustion of all of the nails in the magazine assembly 24, in order to refill the guideways, the handle 122a is moved rearwardly toward the end 52 of the magazine. As can be seen from FIGS. 2 and 3, the handle 122a is positioned forwardly of and in alignment with the handle 122b so that when the handle 122a is manually moved to the rear of the magazine assembly the handle 122b will also be carried to the rear. The forward end of the magazine assembly 24 is manually moved in the direction of the arrow 124 (FIG. 8) against the biasing spring 108 until the bracket leg 70a on the right-hand side of the magazine is in alignment with the rearward facing notch 104 on the latch member 92. When this alignment is obtained, the spring 94 is then free to move the latch member 92 rearwardly so that the notch 104 is engaged by the bracket leg 70a locking the magazine assembly in the first feeding position previously described with the guideway 34a in feeding alignment with the drive track.

Strips of fasteners are then inserted from the top into both of the open guideways 34a and 34b and the handles are released. When the handles 122a and 122b are

released, the biasing springs 48 urge the respective pushers 50a and 50b forwardly so that the leading edges 56a and 56b thereof engage the rearwardmost fasteners 12 in each of the guideways. The notches 58a and 58b in the pushers engage the heads of the rearwardmost fasteners in the strips and prevent upward movement of the strips out of their respective guideways. The forward ends of the strips 14 are prevented from upward movement out of their respective guideways by means of the cross plate 80 on the forward end of the magazine assembly 24. The spring 48 engaging the pusher 51a biases the lead nail in the strip of nails in guideway 34a through the feed opening 32 into driving position in the drive track. The operator of the tool 10 can now operate the tool to drive fasteners which are fed from the first guideway 34a forwardly into the drive track by the pusher 50a. As the last fastener in the guideway 34a is fed into the feed opening 32, the latch member 92 is moved forwardly by the finger 120a of the pusher 50a allowing the spring 108 to laterally shift the magazine assembly 24 to the second feeding position. In the second position, the fasteners within the second guideway 34b are fed directly into the feed opening 32 and the drive track 28 by the forwardly biased pusher 50b until the supply of fasteners in the entire magazine 24 is exhausted. At this time, two strips 14 of fasteners 12 can be loaded into the magazine assembly in the manner previously described.

The present invention thus provides a fastener driving tool with means for holding a much larger supply of fasteners and, consequently, reduces the time interval between refilling the tool with fasteners. The magazine assembly 24 is maintained in a first feeding position wherein fasteners are fed from one of the plurality of guideways of the magazine assembly into the drive track until the supply therein is exhausted and then, with no interruption in feeding, the magazine assembly is automatically shifted to a second position wherein a second guideway is aligned to feed fasteners into the drive track. The size of the magazine assembly of the present invention is not substantially increased by the addition of one or more additional guideways and, consequently, the driving tool 10 is not awkward and cumbersome to handle as is the case when rotary or drum type assemblies are utilized.

Although the present invention has been described with reference to a single illustrative embodiment thereof, it should be understood that numerous other modifications and embodiments can be devised by those skilled in the art that will fall within the spirit and scope of the principles of this invention.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A magazine assembly for holding a supply of fasteners and feeding them into a drive track of a driving tool comprising first and second fastener guide means disposed in side-by-side relation for guiding successive fasteners therein into said drive track, each of said guide means including an open forward end adapted to communicate with said drive track when said guide means is aligned therewith, and means responsive to fasteners positioned in said first guide means for moving said second guide means into alignment with said drive track when fasteners in said first guide means are exhausted, said last mentioned means including normally inoperative biasing means for moving said second guide means into fastener feeding alignment with said drive track and means for rendering said biasing means operative in response to the exhaustion of fasteners from said first guide means.

2. A magazine assembly for holding a supply of fasteners and feeding them into a drive track of a driving tool by a driving element comprising a pair of longitudinally disposed fastener guide means adjacent one another in parallel, in side-by-side relation for guiding successive fasteners disposed therein into said drive track, each of said guide means including an open forward end

adapted to communicate with said drive track when said guide means is aligned therewith, said assembly being laterally shiftable between first and second feeding positions wherein first one and then the other of said guide means is aligned with said drive track, and biasing means engaging said guide means and operative in response to the absence of fasteners in said first guide means to move said second guide means into alignment with said drive track.

3. A fastener driving tool comprising a nose piece having a drive track therein and a rearward face, a driving element slidable in said drive track to drive fasteners therefrom, a magazine assembly for holding a supply of fasteners and feeding them into said drive track, fastener feed slot means defined in said nose piece in communication with said drive track and extending rearwardly therefrom to said rearward face, said magazine assembly including a rearwardly extending longitudinal body having a forward face confronting the rearward face of said nose piece and movable laterally in respect thereto between first and second fastener feeding positions, first fastener guide means defined in said body member extending longitudinally thereof for guiding the forward movement of a strip of fasteners disposed therein, said first fastener guide means having an open forward end opening into the forward face of said body member, second fastener guide means defined in said body member extending longitudinally parallel to and in side-by-side spaced apart relation to said first fastener guide means, said second fastener guide means having an open forward end opening into the forward face of said body member, first pusher means slidably disposed in said first fastener guide means biased forwardly therein and including a forward edge engageable with the last fastener of a strip of fasteners placed in said first fastener guide means for normally urging said strip forwardly therein, biasing means interconnecting said nosepiece and the forward end of said body member for normally biasing the latter in a lateral direction towards said second feeding position wherein the forward end of said second fastener guide means is aligned with said feed slot means of the nose piece, latch means engageable between said nose piece and the forward end of said body when in a latched position for maintaining the latter in said first feeding position wherein the forward end of said first fastener guide means is aligned with said feed slot means against the urging of said biasing means, said latch means being movable to an unlatched position out of engagement between said nose piece and body member wherein the latter may move laterally to said second position due to urging of said biasing means and latch actuating means on said first pusher means engageable with said latch means to move the latter to the unlatched position when the forward edge of said first pusher means reaches a full forward position wherein said last fastener of said strip is moved into said feed slot means in said nose piece.

4. A fastener driving tool comprising a nosepiece having a drive track therein and a rearward face, a driving element slidable in said drive track to drive fasteners therefrom, a magazine assembly for holding a supply of fasteners and feeding them into said drive track, said magazine assembly including a rearwardly extending longitudinal body having a forward face confronting the rearward face of said nose piece and movable laterally in respect thereto between first and second fastener feed positions, first guide means defined in said body member extending longitudinally thereof for guiding the forward movement of a strip of fasteners disposed therein, said first guide means having an open forward end opening into the forward face of said body member for selected communication with said drive track when said assembly is in said first position, second guide means defined in said body member extending longitudinally parallel to and in side-by-side spaced apart relation to said first guide means, said second guide means having an open

forward end opening into the forward face of said body member for selected communication with said drive track when said assembly is in said second position, pusher means slidably disposed in said first guide means biased forwardly therein and including a forward edge engageable with the last fastener of a strip of fasteners disposed in said first guide means for normally urging said strip forwardly therein, normally disabled biasing means interconnecting said nosepiece and the forward end of said body member for biasing the latter in a lateral direction from said first position to said second position, latch means engageable between said nosepiece and the forward end of said body when in a latched position for maintaining the latter in said first position wherein the forward end of said first guide means is aligned with said drive track, said latch means being movable to an unlatched position out of engagement between said nosepiece and body member wherein the latter may move laterally to said second position in response to said biasing means and means on said pusher means responsive to the exhaustion of fasteners in said first guide means for rendering said biasing means operative to move the magazine assembly into said second position.

5. A fastener driving tool comprising a nosepiece having a drive track therein and a rearward face and a driving element slidable in said drive track to drive fasteners therefrom, a magazine assembly for holding a supply of fasteners and feeding them into said drive track, said magazine assembly including a rearwardly extending longitudinal body having a forward face confronting the rearward face of said nosepiece and movable laterally in respect thereto between first and second fastener feed positions, first guide means defined in said body member extending longitudinally thereof for guiding the forward movement of a strip of fasteners disposed therein, said first slot means having an open forward end opening into the forward face of said body member adapted for alignment with said drive track when said body is in said first position, second guide means defined in said body member extending longitudinally parallel to and in side-by-side spaced apart relation to said first guide means, said second guide means having an open forward end opening into the forward face of said body member adapted for alignment with said drive track when said body is in said second position, pusher means slidably disposed in said first guide means biased forwardly therein and including a forward edge engageable with the last fastener of a strip of fasteners disposed in said first slot means for normally urging said strip forwardly therein, normally inoperative biasing means interconnecting said nosepiece and the forward end of said body member for normally biasing the latter in a lateral direction from said first position toward said second position and latch means engageable between said nosepiece and the forward end of said body when in a latched position for maintaining the latter in said first position, said latch means being movable to an unlatched position out of engagement between said nosepiece and body member wherein the latter may move laterally to said second position due to urging of said biasing means, said pusher means including a portion engageable with said latch means for moving the latter to the unlatched position when the forward edge of said pusher means reaches a full forward position wherein said last fastener of said strip is moved into said feed slot means in said nosepiece.

6. A magazine assembly for holding a supply of fasteners and feeding them into the drive track of a fastener driving tool comprising a magazine body defining therein a pair of fastener guide ways arranged to extend rearwardly from a forward end thereof in side-by-side relation with one another, each of said guide ways having an open forward end adapted to communicate with said drive track when aligned therewith, said magazine body adapted for pivotal mounting on said tool for selected pivotal movement about an axis remote from the forward

end thereof between a first position wherein one of said guide ways is aligned with said drive track and a second position wherein the other guide way is aligned with said drive track, latch means for maintaining said body in said first position as long as fasteners are present in one of said guide ways and movable to an unlatched position when the fasteners therein are exhausted, and biasing means for moving said body to said second position when said latch means is moved to an unlatched position.

7. A magazine assembly for holding a supply of fasteners and feeding them into the drive track of a fastener driving tool comprising a magazine body defining therein a pair of fastener guide ways arranged to extend rearwardly from a forward end thereof in side-by-side relation, each of said guide ways having an open forward end adapted to communicate with said drive track when aligned therewith, said magazine body adapted for pivotal mounting on said tool for selected pivotal movement about an axis remote from the forward end thereof from a first position wherein one of said guide ways is aligned with said drive track to a second position wherein the other of said guide ways is aligned with said drive track, biasing means normally inoperative when said body is in said first position and operative to move said body to said second position and means responsive to the exhaustion of fasteners in said one guide way for rendering said biasing means operative.

8. A magazine assembly for holding a supply of fasteners and feeding them forwardly thereof into the drive track of a fastener driving tool comprising a body member having a plurality of longitudinally extending fastener guide ways in spaced apart side-by-side relation for guiding strips of connected together fasteners into said drive track, said member having a closed rear end and a forward end having a pair of spaced apart openings therein, said openings respectively aligned with each of said guide ways, each of said guide ways formed with spaced apart opposite side walls for guiding the depending shanks of the fasteners, each of said walls including a plurality of longitudinally extending, spaced apart grooves disposed in opposing relation on oppositely facing side walls, fastener pushing members slidably disposed in each of said guide ways extending between opposite side walls thereof, said pusher members each including a forward edge adapted for engagement with a rear fastener in the guide ways and biasing means longitudinally disposed in recesses formed by pairs of opposed grooves in the side walls of each of said guide ways positioned to extend between said pushing members and the closed rear end of said body member, urging said pushers forwardly along their respective guide ways.

9. A fastener driving tool comprising a drive track with a reciprocally movable driver therein for driving fasteners from said track, magazine means for containing a supply of fasteners and feeding said fasteners into said drive track, said magazine means including a plurality of side by side, longitudinally extending fastener guiding ways, each way having an open forward end adapted to communicate with said drive track when said way is aligned therewith, means for mounting said magazine means on said tool to pivot relative thereto to move first one and then the other of said ways into alignment with the drive track and means for holding said magazine to feed fasteners first from one of said ways until exhausted therein and automatically moving said magazine to feed fasteners from the other way into said drive track without interruption of fasteners feeding during movement of said magazine from one aligned position to the other.

10. A magazine assembly for holding a supply of fasteners secured together in strips and feeding successive fasteners from the strips into a drive track of a driving tool, said assembly including a body having a forward end adjacent said drive track and movable laterally with respect thereto between first and second spaced apart feeding positions, said body including a pair of longi-

11

itudinally extending guide ways in side-by-side relation for guiding strips of fasteners placed therein forwardly into said drive track, forwardly biased pushers slidably disposed in each of said guide ways for engaging the rearward fasteners of a strip of fasteners disposed in each guide way and moving the strips forwardly to feed successive fasteners into said drive track, biasing means laterally urging the forward end of said body into said second position wherein one of said guide ways is aligned with said drive track and means engageable with the forward end of said body and responsive to the position of said pusher in said one guide way for maintaining the other of said guide ways in aligned position with said drive track until said pusher reaches a predetermined forward position in said one guide way.

11. A magazine assembly for holding a supply of fasteners and feeding said fasteners into the drive track of a driving tool, said assembly comprising a plurality of fastener guiding ways disposed in side-by-side relation, each of said ways having an open forward end adapted to communicate with said drive track when aligned therewith, pusher members slidably disposed in each of said ways engageable with fasteners disposed therein for normally biasing said fasteners forwardly toward the forward end of said ways and means responsive to the position of the pusher disposed in one of said ways for moving the other of said ways into alignment with said drive track when the supply of fasteners in said one way is exhausted.

12

12. In a fastener driving tool, fastener driving means including a drive track, a fastener magazine assembly including at least a pair of guide ways each adapted to guide strips of fasteners, said magazine assembly being movable from a first position in which fasteners from one of the guide ways are fed to the drive track to a second position in which fasteners from the second guide way are fed to the drive track, detecting means for determining the quantity of fasteners in one guide way, and means controlled by the detecting means for automatically moving the magazine assembly from the first position to the second position when the supply of fasteners in the first guideway is reduced to a given level.

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GRANVILLE Y. CUSTER, JR., *Primary Examiner.*