Oct. 31, 1933. C. A. RICH 1,933,073

GUIDE MEANS FOR FEEDING BARS OF STOCK TO MACHINE TOOLS

Filed June 20, 1932

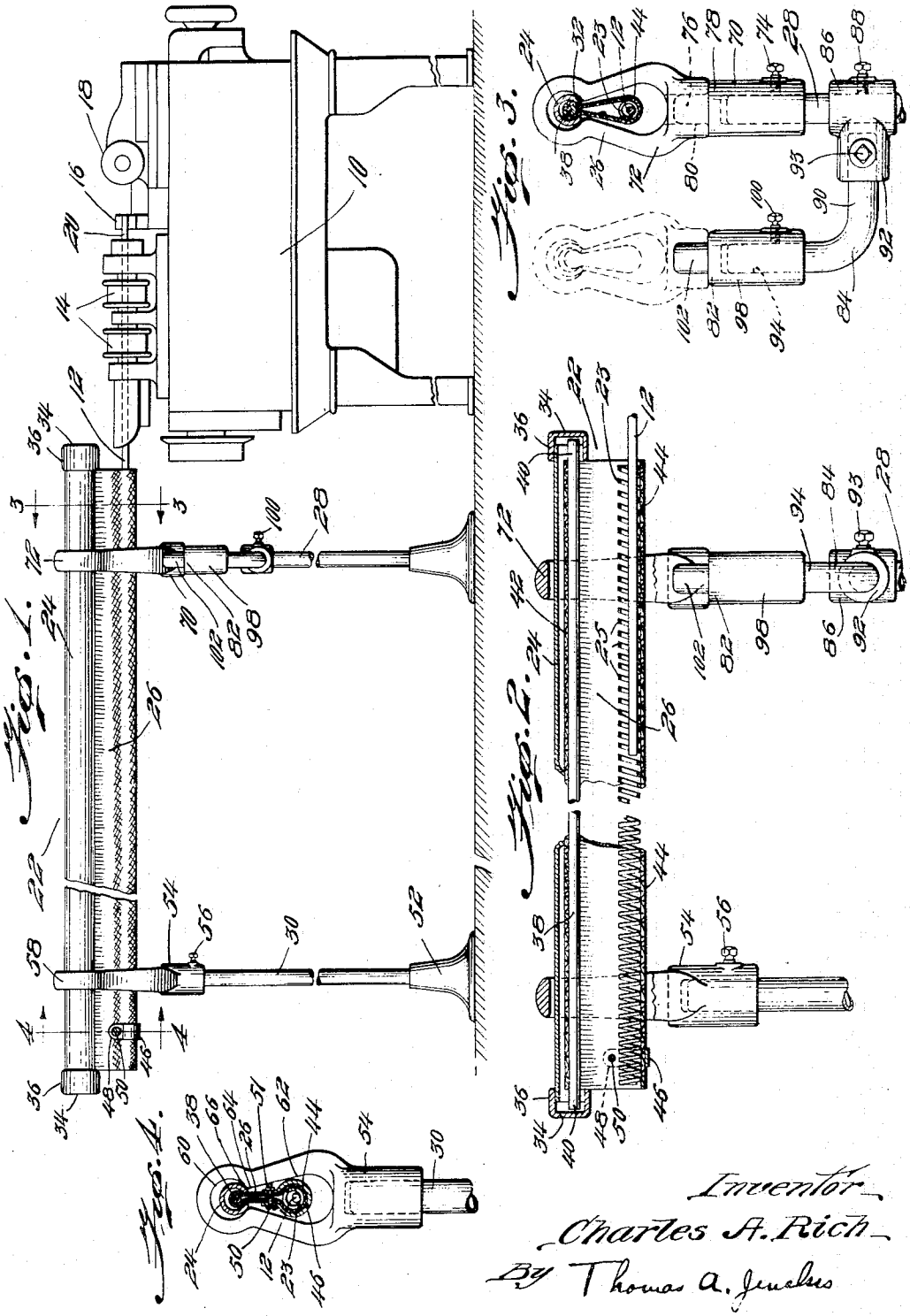


Fig. 1.

Fig. 3.

Fig. 2.

Fig. 4.

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Patented Oct. 31, 1933 1,933,073

UNITED STATES PATENT OFFICE

1,933,073

GUIDE MEANS FOR FEEDING BARS OF STOCK TO MACHINE TOOLS

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Application June 20, 1932. Serial No. 618,233

25 Claims. (Cl. 82—38)

My invention relates to improvements in guide means for feeding bars of stock to a machine tool such as a lathe or an automatic screw machine.

An object of my invention is to provide a guide means which will substantially lessen a large amount of the noise which now takes place in these tubes caused by the rotating bars forcibly striking against the side of the tube, thereby providing better efficiency in the worker and a substantial lessening of the noise attendant in such a machine. When bars of stock have been fed to the guide tubes of this description, particularly if they happen to be of square, hexagonal, or other shape they tend to strike if they rotate therein against the sides of the tubes and become scratched.

A further object of my invention therefore is to provide a specific type of yielding cushioning lining, which in addition to the substantial elimination of noise tends to eliminate this knocking or striking. While I am aware that others have provided various types of devices for this purpose, the bar stock supporting lining has normally been mounted within a tube and while usually mounted alone within said tube may have a sheath or covering therefor additionally contained within said tube. While this has tended somewhat to lessen the noise and to prevent the striking, I have found that by supporting the lining throughout its length by a depending sleeve of flexible material preferably depending from an upper rod or tube, due to the larger opportunity for vibration in the open within the lower end of this flexible sleeve that the amount of noise is considerably lessened and the chipping of the bar stock considerably reduced.

I preferably so construct my supporting means that the supporting sleeve and the supporting lining enclosed therein may be readily pivotally movable on this supporting means and slidable relative thereto towards and away from the operating parts of the machine and I preferably provide the supporting means so that the canvas or other type of flexible sleeve employed can swing freely on all sides.

A further feature of my invention relates to the improvements in the supporting stands thereof, whereby the supporting bracket head may be moved from an operative position on top of the supporting stand to a loading position preferably above and laterally offset therefrom so that my improved lining may be readily loaded without the bars of stock coming in contact with the operating parts of the machine tool and I believe I am the first to provide a loading stand on the front standard at a different elevation from the operating stand to insert a new bar of stock within the lining without interfering with the attachments on the machine tool, which elevation may be also adjustable pivotally and vertically so the loading point can be readily adjusted so as to have no interference with the machine.

A further feature of my invention is to provide means to flexibly support a stock bar supporting lining at all parts throughout its length.

These and such other objects of my invention as may hereinafter appear will be best understood from a description of the accompanying drawing which illustrates an embodiment thereof.

In the drawing, Fig. 1 is a side elevation of my invention adjacent to a screw machine.

Fig. 2 is a longitudinal sectional view of the guide means I preferably employ showing the front and rear supporting standard heads, the slotted upper supporting tube, the rod mounted within said tube, the resilient stock bar supporting lining and the flexible supporting sleeve having the upper end thereof mounted on said rod, the sides thereof depending downwardly through said slot and the bottom thereof enclosing and supporting the resilient stock bar supporting lining.

Fig. 3 is a front elevation of the upper portion of a front supporting standard constructed in accordance with my invention showing the operating position of the guide means supporting head in full lines and the loading position on the loading stand in dotted lines, with my specific guide tube shown in section along the line 3—3 of Fig. 1.

Fig. 4 is a rear elevation of the upper portion of the rear supporting standard showing my improved guide means in section along the line 4—4 of Fig. 1.

In the drawing, wherein like characters of reference indicate like parts throughout, I have shown my invention applied to a screw machine 10 of standard type. In machines of this description, the work 12 in rods or bars is slid through the rotating work holder 14 and projects through the inner end thereof where the various tools 16 suitably controlled by the index mechanism 18 may be brought to bear on the projecting end 20 of said rotating bar of stock. Inasmuch as lathes or screw machines of this description work automatically for quite a period of time, it is necessary in the art to provide some sort of means to supply a length of stock for them to work on during this period and it has been cus-

tomary in the prior art to provide guide means 22 of considerable length adapted to receive a rotating bar of stock or wire 12 and permit it to be worked on by various parts of the screw machine 10 and it has been only necessary for the operative to replace the rotating bar of stock 12 at spaced intervals until the machine becomes empty of stock. It is apparent however, that as the stock 12 which may be round as shown, square, hexagonal, rectangular or otherwise revolves in the stationary guide means 22 that it will rattle therein and that the sides and ends thereof will tend to vibrate and strike against the inner side of the guide means 22, thereby causing a large amount of noise and tending to break, chip or mar the corners of any irregularly shaped stock. My invention particularly relates to the substantial lessening of this noise and chipping. So far as I am aware in the prior art the guide means has included a tubular stock bar supporting lining 23 into which the rod 12 is inserted. The guide means itself includes the tube 24 into which the particular lining is usually inserted. I have found, however, that instead of mounting the supporting lining 23 within the tubular means 24, the amount of noise is substantially lessened and the chipping of stock substantially reduced if the supporting lining 23 is flexibly supported throughout its length, preferably by means 26 that will permit it to depend from said tubular guide tube or support 24 such as means 26 flexibly supporting said lining 23 throughout its length. In my particular embodiment shown the supporting tubular means 24 for resiliently supporting the lining is mounted on suitable front and rear supporting standards 28 and 30 respectively. To this end I provide a supporting tube 24 having a longitudinal slot 32 along the lower edge thereof and I preferably provide the cap members 34 having the side walls 36 threaded or otherwise firmly secured to the ends of said slotted tubular supporting means 24. I also mount a rod 38 longitudinally within said tube 24 and preferably having the ends 40 thereof supported by the side walls 36 of said cap members 34. To support the tubular stock bar supporting lining 23, I preferably provide a flexible sleeve 26 constructed of any suitable flexible material such as canvas or otherwise and one which is only preferably flexible and not resilient having the upper end 42 thereof extending upwards through the slot 32 and mounted over and around said rod 38 and the lower end thereof depending from said rod 38 and through said slot 32 and having the bar supporting lining 23 mounted within the lower end thereof. While the bar supporting lining may consist of any suitable material, preferably resilient, I preferably as shown in the drawing employ the flat helically wound coil spring 23 and also for noise lessening purposes and to lessen the amount of metal actually in contact with the stock having spaced coils 25. I also preferably employ means to retain said spring or tubular lining 23 within the lower end 44 of said canvas sleeve 26. While any suitable type of means may be employed, I preferably employ the clip means 46 generally similar to a hose clip adapted to be clipped over the lower end 44 of the canvas sleeve and sides of the lining or spring 23 and having the upper ends 48 thereof joined together by a suitable bolt or other means 50 and nut 51. It is then obvious that the canvas sleeve 26 is then mounted within the slotted pipe or tube 24 and that the caps 34 prevent the sleeve 26 from slipping out end-wise and also function as stops to prevent the supporting rod 38 from slipping downwards. It is also obvious that employing my construction I am enabled to support the stock lining 23 throughout its entire length. I believe therefore I am the first to provide a resilient or flexible means for dependingly supporting the supporting lining 23 throughout its entire length and therefore completely enclosing it to prevent the sound escaping from within its supporting means as often happened where the supporting means was open at intervals as in various former types. It is also obvious that the retaining means 46 holds the spring or lining 23 within the canvas sleeve 26.

While any means to support this tubular supporting means 23 adjacent to and opposite the desired operating parts of the machine tool may be employed, I preferably as shown employ the supporting means including the tube 24, sleeve 26 and rod 38 and I preferably employ front and rear supporting standards 28 and 30 for supporting said means. The rear supporting standard 30 is provided with the usual base 52 and the supporting bracket 54 adjustably mounted vertically thereon by means of the set screw 56. Said standard 54 is provided with a head 58 having (as shown in Fig. 4) a large tubular longitudinal channel 60 in the upper end thereof, a larger longitudinal channel 62 below it of a size to permit the free swinging of the lower end 44 of the sleeve 26 and lining 23 therein and a restricted longitudinal passage 64 connecting said channels 60 and 62 whereby the sides of the tube 24 as shown more particularly in Fig. 4 may rest on the lower portions 66 of said upper channel 60 to be slidably and pivotally mounted thereon as the tube 24 is of considerably less size than that of the channel 60. It is apparent that said tube 24 may readily frictionally slide over the supporting surfaces 66 of said head 58 and the sides of said sleeve 26 may freely depend through said connecting passage-way 64 and the lower end 44 of said sleeve, enclosed lining 23 and stock 12 may have free movement in all directions within said enlarged lower channel 62 to permit a free swinging vibratory motion thereof therein.

I also preferably similarly construct the front supporting standard 28 for the front end of said tube with a similarly shaped operating bracket 70 and head 72. In this embodiment, however for purposes to be described the head 72 is preferably detachably connected to the bracket 70 thereof. The bracket 70 is also provided with means such as the set-screw 74 for adjustably varying its vertical height relative to the standard 28 and is provided at its upper end with the stud 76 forming a bracket head supporting operating stud stand 78 adjustably mounted on said standard 28 having a detachable head 72 having a hole 80 in the lower end thereof for receiving the stud 76 for mounting of said head 72 on said bracket head supporting operating stud stand 78.

A further feature of my invention relates to improvements in the novel type of front support I preferably employ which also includes a bracket head loading stand 82. For this purpose I provide a right angle loading bracket 84 pivotally and vertically adjustably mounted on said standard 28. Said bracket 84 has the base 86 comprising a collar vertically adjustably mounted on said supporting standard 28 and settable in a locked position by the set-screw 88. The right angle bracket 84 may be varied in radial adjustment by means of adjusting the length of the lower end 90 thereof within a T joint 92 project-

ing at right angles from the collar 86. The bracket bar 84 is then bent upwardly into the upper end 94 on to which the bracket head supporting loading stud stand 82 is vertically adjustably mounted by means of the upper end 94 of said bar 84 fitting into a collar 98 thereon adjustably securable thereto at different heights by means of the set screw 100. The loading stud stand 82 also has the stud 102 projecting upwardly therefrom. As illustrated in Fig. 3 the front supporting head 72 may thus be readily removed from the operating position on top of the operating stand 70 by merely lifting it up so that the hole thereof may be withdrawn from the stud 76 thereof and then lowering it so that the hole 80 of said head 72 may be mounted on the stud 102 of the bracket head supporting loading stand 82. It is thus obvious that the loading stand may be adjusted out of the way of the operating parts of the machine so that the guide means and the guide head 72 may be removed to the loading stand 82 and the guide means 22 including the lining 23 thereof may be readily loaded in position out of the way of the operating parts of the machine tool and then moved into an operating position on top of the operating stand 70 in line with said parts. It is thus obvious that as suggested in Fig. 3 the loading position of the front head 72 may be at a different elevation from the operating position thereof and that the loading stand may be pivotally mounted to pivot at any angle relative to the front supporting standard 28 by unlocking the set screw 88 and moving the collar 86 therearound and similarly at any height on the supporting standard 28; that the spacing between said stands may be adjustably varied by moving the end 90 out of the T collar 92 on adjustment of the set screw 93 and that the vertical height of the stand 82 may similarly be adjustably varied by means of moving the collar 98 on the upper end of the bracket bar 84 and suitably locking it thereon by means of the set screw 100, and by moving the T collar 86 vertically of the standard 28 and locking it in position by means of the set screw 88. Employing this construction of bracket head, it is obvious that on movement of the front head 72 from the operating stand 70 to the loading stand 82 that the rear end of the tube 24 and other supporting means enclosed may pivot freely within the specific structure of the rear supporting head 58, which I preferably employ and it is also obvious that with this construction of operating head that the tube 24 including its depending sleeve 26, lining 23 and rod 12 may be slid on said heads 58 and 72 forwards and backwards away from the machine tool 10 for loading or other purposes and thereby enabling the sound deadening sleeve 26 to be moved immediately adjacent the operating parts of the machine tool, and that the particular construction of the head provides clearance for the canvas sleeve on all sides so that it can swing and pivot very freely to readily take up the vibration and lessen the noise.

Due to the fact that the supporting guide means may be readily slid end-wise on the supporting heads 58 and 72, it is obvious that the operator may move the stock support 22 so he can more easily force the bar 12 into the feed fingers, etc. and that when this has been done the entire supporting means including the tube 24, sleeve 26, lining 23 etc. can be moved up close to the end of the spindle again, thereby guarding the rotating bar 12 and substantially eliminating a large amount of the attendant noise. It is also apparent that the machine end of the supporting sleeve 26 allows freedom of movement and reduces the noise in the mouth of the tube and at the same time reduces the rattle near the spindle. Inasmuch as the supporting means 22 can be swung away from the operating to a loading position, preferably at a different elevation from the operating position, the operator may readily insert a new bar of stock in the guide means 22 without interfering with the attachments 14, etc. on the machine tool and it is also apparent that the adjustment of the loading position is independent of adjustment for running height so that the running height may be readily set and the adjustment of the loading position varied, depending on the nature of the stock and height of the operative. The loading stand 82 is also pivotally mounted so as to be pivotable away from the supporting stand 70, thus permitting the operator to locate his loading point with the assurance that it will not interfere with the machine. It is thus apparent that I have provided a novel type of guide means for stock bars for machine tools such as screw machines which may be readily pivotally suspended preferably throughout its length from a suitable longitudinal extending supporting means, thereby allowing the portion thereof supporting the stock to vibrate freely, to swing if desired and to flexibly shake up and down to aid in absorbing the noise, and it is apparent that I have provided a novel construction, including this specific feature which may be readily adjusted relative to the machine tool.

It is also apparent that I have provided a novel type of standards for guide means for machine tools of any type other than the specific type shown which may be readily adjusted from a set operating position to an adjustable loading position.

It is understood that my invention is not limited to the specific embodiments shown and that various deviations may be made therefrom without departing from the spirit and scope of the appended claims.

What I claim is:

1. Guide means for feeding bars of stock to machine tools, including a supporting tube having a longitudinal slot in the lower end thereof, cap members having side walls for each end of the tube, a rod mounted longitudinally within said tube having the ends thereof supported by the side walls of said cap members, a canvas sleeve having the upper end thereof extending upwards through said slot and mounted over and on said rod and the lower bar stock receiving end depending from said rod, and through said slot, a coiled stock bar supporting spring mounted within the lower end of said canvas sleeve, clip means to retain said spring within the lower end of the canvas sleeve, a rear supporting standard for the rear end of said tube having a supporting bracket adjustably mounted thereon having a head having a tubular longitudinal channel in the upper end thereof, a larger longitudinal channel below it and a restricted longitudinal passage-way connecting said channels, whereby the sides of said tube may rest on the lower portions of said upper channel to be slidably and pivotally mounted thereon, the sides of the sleeve may freely depend through said connecting passageway and the lower end thereof supporting said spring may have free movement within said lower channel, a front supporting standard for the front end of said tube hav-

ing a right angle loading bracket pivotally and vertically adjustably mounted thereon, a bracket head supporting loading stud stand adjustably mounted thereon, a bracket head supporting operating stud stand adjustably mounted on the upper end of said standard, and a head of similar configuration and function to that of the rear stand head having a hole thereon for alternative mounting on the operating stud stand or loading stud stand, whereby said guide means may be readily loaded in a position out of the way of the operating parts of the machine tool and moved to an operating position in line with said parts.

2. Guide means for feeding bars of stock to machine tools, including a supporting tube having a longitudinal slot in the lower end thereof, a rod mounted longitudinally within said tube, a canvas sleeve having the upper end thereof extending upwards through said slot and mounted over and on said rod and the lower bar stock receiving end depending from said rod and through said slot, a coiled stock bar supporting spring mounted within the lower end of said canvas sleeve, clip means to retain said spring within the lower end of the canvas sleeve, a rear supporting standard for the rear end of said tube having a supporting bracket adjustably mounted thereon having a head having a tubular longitudinal channel in the upper end thereof, a larger longitudinal channel below it and a restricted longitudinal passageway connecting said channels, whereby the sides of said tube may rest on the lower portions of said upper channel to be slidably and pivotally mounted thereon, the sides of the sleeve may freely depend through said connecting passageway and the lower end thereof supporting said spring may have free movement within said lower channel, a front supporting standard for the front end of said tube, having a right angle loading bracket pivotally and vertically adjustably mounted thereon, a bracket head supporting loading stud stand adjustably mounted thereon, a bracket head supporting operating stud stand adjustably mounted on the upper end of said standard, and a head of similar configuration and function to that of the rear stand head having a hole thereon for alternative mounting on the operating stud stand or loading stud stand, whereby said guide means may be readily loaded in a position out of the way of the operating parts of the machine tool and moved to an operating position in line with said parts.

3. Guide means for feeding bars of stock to machine tools including a supporting tube having a longitudinal slot in the lower end thereof, cap members having side walls for each end of the tube, a rod mounted longitudinally within said tube having the ends thereof supported by the side walls of said cap members, a canvas sleeve having the upper end thereof extending upwards through said slot and mounted over and on said rod and the lower bar stock receiving end depending from said rod and through said slot, a coiled stock bar supporting spring mounted within the lower end of said canvas sleeve, and clip means to retain said spring within the lower end of the canvas sleeve.

4. Guide means for feeding bars of stock to machine tools including a supporting tube having a longitudinal slot in the lower end thereof, a rod mounted longitudinally within said tube, a canvas sleeve having the upper end thereof extending upwards through said slot and mounted over and on said rod and the lower bar stock receiving end depending from said rod and through said slot, a coiled stock bar supporting spring mounted within the lower end of said canvas sleeve and clip means to retain said spring within the lower end of the canvas sleeve.

5. Supporting means for guide tubes for feeding bars of stock to machine tools, including a rear supporting standard for the rear end of said tube having a supporting bracket adjustably mounted thereon having a supporting head having a tubular longitudinal channel in the upper end thereof, a larger longitudinal channel below it and a restricted longitudinal passageway connecting said channels, a front supporting standard for the front end of said tube having a right angle loading bracket pivotally and vertically adjustably mounted thereon, a bracket head supporting loading stud stand adjustably mounted thereon, a bracket head supporting operating stud stand adjustably mounted on the upper end of said standard, and a head of similar configuration and function to that of the rear stand head having a hole thereon for alternative mounting on the operating stud stand or loading stud stand, whereby said guide means may be readily loaded in a position out of the way of the operating parts of the machine tool and moved to an operating position in line with said parts.

6. Supporting means for guide tubes for feeding bars of stock to machine tools, including a rear supporting standard for the rear end of said tube having a supporting bracket adjustably mounted thereon having a supporting head, a front supporting standard for the front end of said tube having a right angle loading bracket pivotally and vertically adjustably mounted thereon, a bracket head supporting loading stud stand adjustably mounted thereon, a bracket head supporting operating stud stand adjustably mounted on the upper end of said standard, and a head of similar configuration and function to that of the rear stand head having a hole thereon for alternative mounting on the operating stud stand or loading stud stand whereby said guide means may be readily loaded in a position out of the way of the operating parts of the machine tool and moved to an operating position in line with said parts.

7. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, cap means for the ends of said tubular means, a bar stock supporting lining having a freely flexible resilient side wall, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and the lower supporting end thereof supporting said bar supporting lining, means to retain said lining in said flexible sleeve, a rear supporting standard for the rear end of said tubular means and a front supporting standard for the front end of said tubular means, each having a supporting bracket vertically adjustably mounted thereon to permit free vibratory movement of said sleeve and lining thereon and slidable and pivotal movement thereof, said front standard also having a loading bracket pivotally radially and vertically adjustably mounted thereon and a tubular supporting means bracket head movable from the upper end of the supporting standard to said loading bracket.

8. Guide means for feeding bars of stock to

machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, a bar stock supporting lining having a freely flexible resilient side wall, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downward through said slot and the lower supporting end thereof supporting said bar supporting lining, means to retain said lining in said flexible sleeve, a rear supporting standard for the rear end of said tubular means and a front supporting standard for the front end of said tubular means, each having a supporting bracket vertically adjustably mounted thereon to permit free vibratory movement of said sleeve and lining thereon and slidable and pivotal movement thereof, said front standard also having a loading bracket pivotally radially and vertically adjustably mounted thereon and a tubular supporting means bracket head movable from the upper end of the supporting standard to said loading bracket.

9. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, cap means for the ends of said tubular means, a bar stock supporting lining having a freely flexible resilient side wall, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot, and the lower supporting end thereof supporting said bar supporting lining, means to retain said lining in said flexible sleeve and means to support said tubular supporting means adjacent to and opposite the desired operating parts of the machine tool.

10. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, a bar stock supporting lining having a freely flexible resilient side wall, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and the lower supporting end thereof supporting said bar supporting lining, a rear supporting standard for the rear end of said tubular means and a front supporting standard for the front end of said tubular means, each having a supporting bracket vertically adjustably mounted thereon to permit free vibratory movement of said sleeve and lining thereon and slidable and pivotal movement thereof.

11. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, cap means for the ends of said tubular means, a helically wound bar supporting resilient spring having spaced coils, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and the lower supporting end thereof supporting said bar supporting spring, means to retain said spring in said flexible sleeve, a rear supporting standard for the rear end of said tubular means and a front supporting standard for the front end of said tubular means, each having a supporting bracket vertically adjustably mounted thereon to permit free vibratory movement of said sleeve and spring thereon and slidable and pivotal movement thereof, said front standard also having a loading bracket pivotally radially and vertically adjustably mounted thereon and a tubular supporting means bracket head movable from the upper end of the supporting standard to said loading bracket.

12. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, cap means for the ends of said tubular means, a helically wound resilient bar supporting spring having spaced coils, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and the lower supporting end thereof supporting said bar supporting spring, means to retain said spring in said flexible sleeve and means to support said tubular supporting means adjacent to and opposite the desired operating parts of the machine tool.

13. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tubular means, a helically wound resilient bar supporting spring, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and the lower supporting end thereof supporting said bar supporting spring, a rear supporting standard for the rear end of said tubular means and a front supporting standard for the front end of said tubular means, each having a supporting bracket vertically adjustably mounted thereon to permit free vibratory movement of said sleeve and spring thereon and slidable and pivotal movement thereof, said front standard also having a loading bracket pivotally radially and vertically adjustably mounted thereon and a tubular supporting means bracket head movable from the upper end of the supporting standard to said loading bracket.

14. Guide means for feeding bars of stock to machine tools including tubular supporting means having a longitudinal slot in the lower end thereof, supporting rod means longitudinally mounted within said tube, a helically wound resilient spring, a flexible supporting sleeve having the upper end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and the lower supporting end thereof supporting said bar supporting spring, and means to support said tubular supporting means adjacent to and opposite the desired operating parts of the machine tool.

15. Guide means for feeding bars of stock to machine tools, including a tubular stock bar supporting lining, supporting means, and means depending from said supporting means and extending the length of said lining to flexibly support said lining throughout its length.

16. Guide means for feeding bars of stock to machine tools, including a tubular stock bar supporting lining, front and rear vertically adjustable supporting standards, supporting means mounted slidably on said standards and flexible means extending the length of said lining for supporting said lining throughout its length depending from said supporting means.

17. Guide means for feeding bars of stock to

machine tools, including a tubular stock bar supporting lining, front and rear supporting standards, supporting means mounted on said standards, and flexible means extending the length of said lining for supporting said lining throughout its length, depending from said supporting means.

18. A supporting standard for stock guide means for machine tools having a right angle loading bracket pivotally and vertically adjustably mounted thereon, a bracket head supporting loading stud stand adjustably mounted on the upper end of said standard, a bracket head supporting operating stud stand adjustably mounted on the upper end of said standard, and a guide means supporting head having a hole thereon for alternative mounting on the operating stud stand or loading stud stand whereby said guide means may be readily loaded in a position out of the way of the operating parts of the machine tool and moved to an operating position in line with said parts.

19. A supporting standard for stock guide means for machine tools having an operating bracket mounted thereon, a loading bracket mounted on said standard and pivotally, radially and vertically adjustable thereon, and a tubular supporting means bracket head movable from the operating bracket to said loading bracket.

20. In a supporting standard for guide means for machine tools, a guide means supporting head, an operating stand mounted on said standard, and a loading stand pivotally adjustably offset and vertically adjustable to different elevations from said operating stand, whereby said guide means supporting head may be moved to a loading position out of the way of the operating parts of the machine tool.

21. In a supporting standard for guide means for machine tools, a guide means supporting head, an operating stand mounted on said standard, and a loading stand at a different elevation from said operating stand, whereby said guide means supporting head may be moved to a loading position out of the way of the operating parts of the machine tool.

22. Guide means for feeding bars of stock to machine tools, including a supporting tube having a longitudinal slot, a rod mounted longitudinally within said tube and a canvas sleeve having the upper end thereof extending upwards through said slot and mounted over and on said rod and a lower bar stock receiving end.

23. Guide means for feeding bars of stock to machine tools, including tubular supporting means having a longitudinal slot, supporting rod means mounted within said tubular means, a flexible supporting sleeve having one end thereof mounted on said rod means, the side walls thereof extending downwards through said slot and a lower bar stock receiving end.

24. Guide means for feeding bars of stock to machine tools, including a supporting tube having a longitudinal slot, a rod mounted longitudinally within said tube and a canvas sleeve having a portion thereof extending through said slot and mounted over and on said rod and another bar stock receiving portion.

25. Guide means for feeding bars of stock to machine tools, including a tubular stock bar supporting lining, front and rear supporting standards, supporting means mounted on said standards, flexible means extending the length of said lining for supporting said lining depending from said supporting means, and means to retain said lining in position within said flexible means.

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