May 18, 1965 F. R. HERMANNS ETAL 3,184,207

UNDERFRAME FOR SEWING MACHINE TABLE

Filed May 14, 1962 2 Sheets-Sheet 1

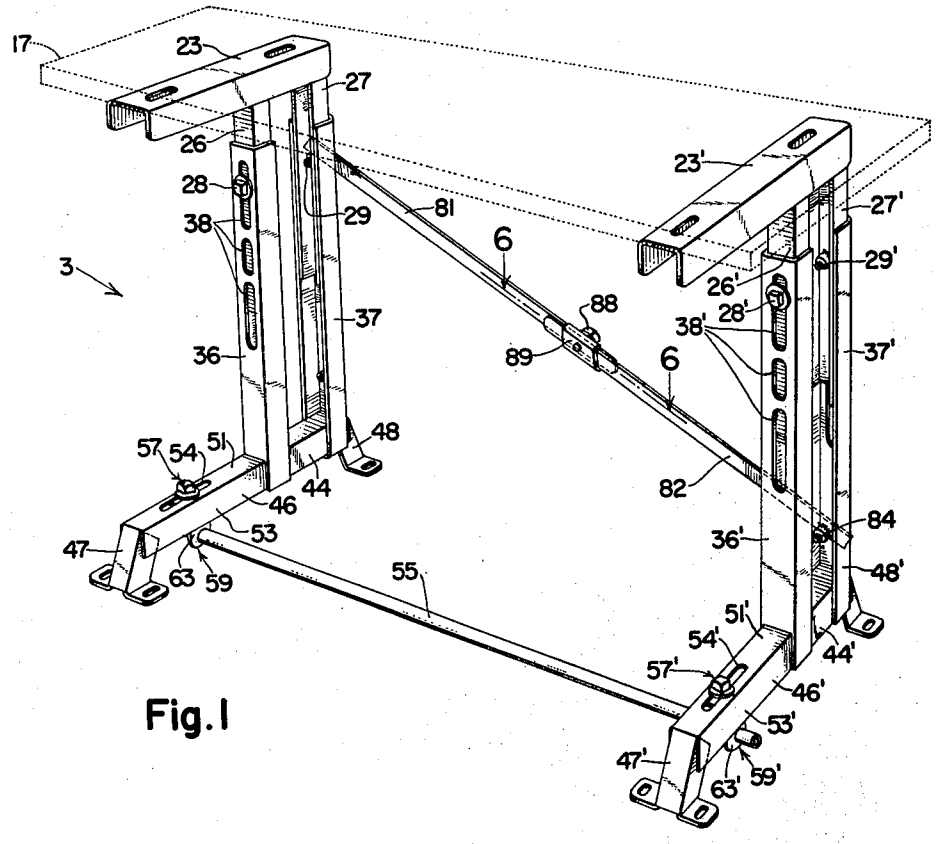


Fig. 1

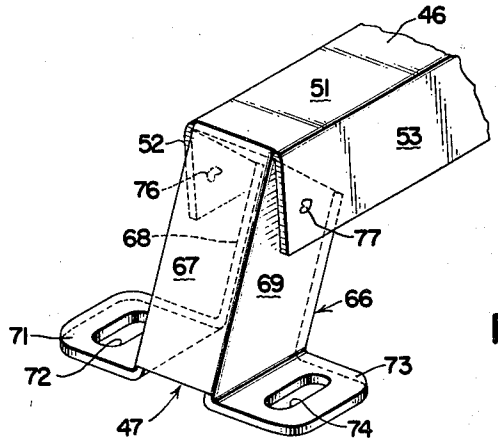


Fig. 2

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Fig.3

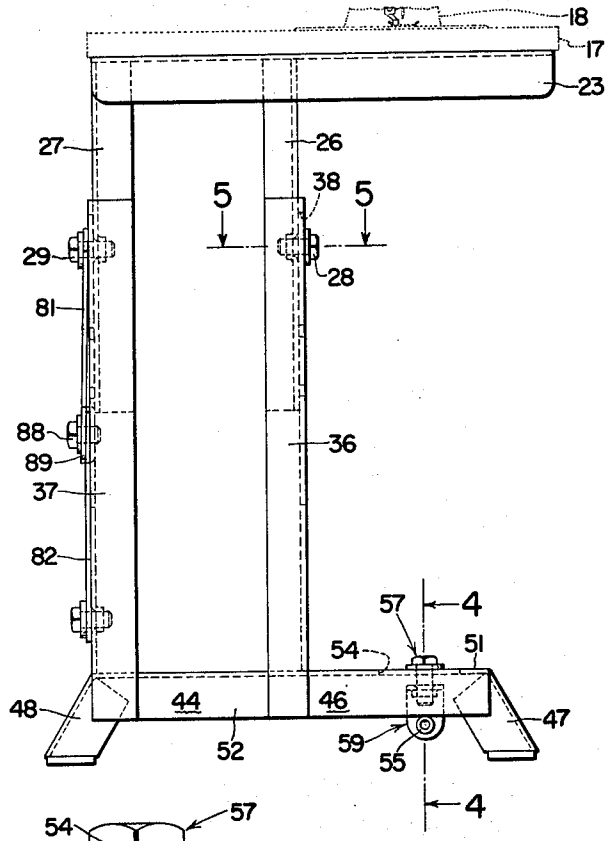
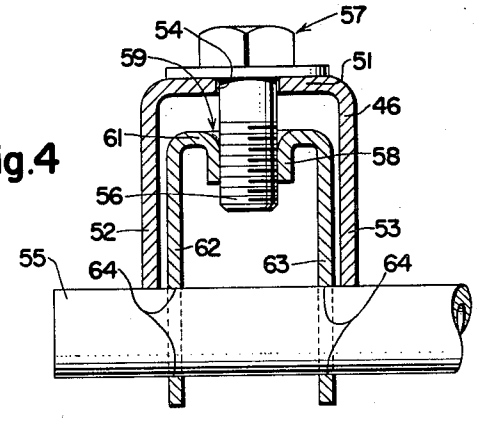


Fig.4



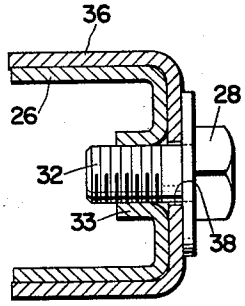


Fig.5

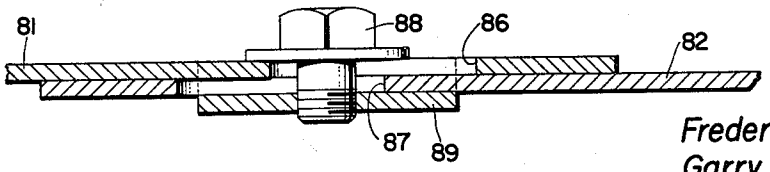


Fig.6

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3,184,207

UNDERFRAME FOR SEWING MACHINE TABLE

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1 Claim. (Cl. 248—413)

This invention relates to the underframe for sewing machine tables of the industrial type, and an object of the invention is to provide an improved device of this character.

Another object of the invention is to provide a sewing machine table underframe that is inexpensive to construct, easy to assemble and easy to adjust.

A further object of the invention is to provide a sewing machine table underframe having bolt securing means which do not require the use of conventional nuts.

Having in mind the above and other objects that will be evident from an understanding of this disclosure, the invention comprises the devices, combinations and arrangements of parts as illustrated in the presently preferred embodiment of the invention which is hereinafter set forth in such detail as to enable those skilled in the art readily to understand the function, operation, construction and advantages of it when read in conjunction with the accompanying drawings in which:

FIG. 1 is a front perspective view of an industrial type sewing machine table underframe embodying the present invention,

FIG. 2 is an enlarged perspective view of a foot member forming part of the underframe shown in FIG. 1,

FIG. 3 is an elevational end view as seen in the direction of the arrow 3 of FIG. 1,

FIG. 4 is a vertical sectional view taken on the line 4—4 of FIG. 3,

FIG. 5 is a horizontal sectional view taken on the line 5—5 of FIG. 3, and

FIG. 6 is a sectional view taken on the line 6—6 of FIG. 1.

The present invention is shown in the accompanying drawings as comprising an underframe of the same general type as the underframe shown in United States Patent No. 1,695,419 and the present underframe is intended to form part of an industrial type sewing machine table adapted to support a table top 17 which in turn is adapted to support a sewing machine 18. The sewing machine 18 may be driven by a belt (not shown) and a transmitter (not shown) under control of a treadle (not shown). Opposite ends of the table top 17 are supported by and secured to horizontal channel shaped members 23–23' from which respectively depend channel shaped upper front legs 26—26' and channel shaped upper rear legs 27—27'. The front upper legs 26—26' respectively are telescopically vertically and adjustably secured to the front lower legs 36—36' by screws 28 and 28' passing through selected slotted holes 38—38' in the legs 36—36'. In like manner, the rear upper legs 27—27' are respectively telescopically vertically and adjustably secured to the rear lower legs 37—37' by screws 29 and 29'. The means for securing the upper legs to the lower legs is more clearly shown in FIGS. 3 and 5 in which the web of the channel of the leg 36 is shown to have an unthreaded elongated hole 38 through which passes the threaded shank 32 of the screw 28. After passing through the hole 38, the threaded shank 32 of the screw 28 enters a threaded push-out 33. It will be noted that by reason of this construction, the leg 26 is securely fastened to the leg 36 without use of conventional loose nuts. The lower ends

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of the lower legs 36 and 37 are welded to a channel shaped horizontal lower cross brace 44 and the lower legs 36' and 37' are welded to a channel shaped horizontal lower cross brace 44'. Portions 46 and 46' respectively formed as part of the braces 44 and 44' extend horizontally forward of the front legs 36 and 36' and at their forward ends are provided with downwardly sloping front feet 47 and 47'. The brackets 44 and 44' to the rear of the lower legs 37 and 37' are respectively provided with rear feet 48 and 48' which are similar to feet 47—47'. The portions 46 and 46' of the channel shaped braces 44 and 44' are respectively formed with webs 51 and 51' and with downwardly extending side flanges 52—52' and 53—53'. Each of the webs 51 and 51' is provided with an elongated slot 54 or 54'.

The two portions 46 and 46' are connected by means of a treadle rod 55 opposite ends of which are secured to the portions 46 and 46' by identical means, which means (FIG. 4) comprises a threaded shank 56 of a headed screw 57, the shank 56 freely passing through the elongated slot 54 after which it is threaded into a downwardly extending push out 58 formed integral with the web 61 of a short channel shaped clamp 59 having side arms 62 and 63. Each of the side arms 62 and 63 is formed with a round hole 64 designed to accommodate an end of the treadle rod 55. When one end of the treadle rod 55 is placed in the holes 64—64 and the screw 57 tightened the clamp arms 62–63 draw the top of the treadle rod 55 against the lower edges of the flanges 52–53, thereby clamping the rod 55 to the portion 46 of the cross brace 44.

The previously mentioned feet 47–48 and 47'–48' are identical and comprise (FIG. 2) an inclined channel member 66 having a web 67 and flanges 68 and 69. A pad 71, which is apertured by an elongated hole 72, extends outwardly from the lower end of the flange 68 and a pad 73, which is apertured by an elongated hole 74, extends outwardly from the lower end of the flange 69. Reference to FIG. 2 shows that the web 67 is smaller in size than the web 51 and thus the outside surfaces of the flanges 68 and 69 engage the inside surfaces of the flanges 52 and 53. The flange 68 is spot welded, as at 76, to the flange 52, and the flange 69 is spot welded, as at 77, to the flange 53.

A tie rod having portions 81 and 82 extends on an incline between a location adjacent to the upper end of the rear lower leg 37 and a location adjacent to the lower end of the rear lower leg 37'. The upper end of the tie rod portion 81 is secured to the leg 37 by the screw 29 which normally holds the rear upper leg 27 to the rear lower leg 37, and the lower end of the tie rod portion 82 is secured to the lower rear leg 37' by a screw and threaded push out 84. The upper portion 81 of the tie rod is adjustably secured to the lower portion 82 of the tie rod by reason of the overlapping ends (FIG. 6) of the portions 81 and 82 being respectively provided with elongated holes 86 and 87. A screw 88 passes through these holes and is threaded into a U-shaped keeper 89.

Having thus set forth the nature of the invention, what we claim herein is:

An underframe for use as part of an industrial type sewing machine table comprising in combination a pair of parallel horizontally disposed channel shaped lower cross-braces, each of said cross-braces having an apertured web and two flanges; a downwardly sloping foot depending from each end of each of said cross-braces, each of said feet comprising a channel portion having a web and two side flanges and an apertured floor engaging pad formed integral with the lower ends of each of said side flanges, the channel portion of said feet fitting within the channel

of the cross-braces; and apertured channel shaped clamp positioned in the channel of each of said cross-braces, each of said clamps comprising a web and two apertured side arms; a threaded push out formed in each of the webs of said clamps; a treadle rod, opposite ends of which pass through the apertures in the side arms of said clamps; threaded screws passing through apertures in said cross-braces and threaded into the push outs in the webs of said clamps; a front and a rear channel shaped apertured lower leg extending upwardly from each of said cross-braces, a channel shaped upper leg telescopically positioned in each of said lower legs; a threaded push out formed in each of said upper legs; threaded screws passing through apertures in said lower legs and entering the threaded push outs in said upper legs; a horizontal channel shaped member carried on the upper ends of each pair of front and rear upper legs, said members being capable of supporting a table top; and an inclined two-piece apertured tie rod connecting the upper end of one of said lower legs to the lower end of another of said lower legs.

References Cited by the Examiner

UNITED STATES PATENTS

845,471	2/07	Mitchell	112—217.1
1,364,350	1/21	Chason	112—217.1
1,581,323	4/26	Rivett et al.	108—14
1,695,419	12/28	Eames	108—155
2,253,935	8/41	Hoch	112—217.2
2,348,043	5/44	Webb et al.	248—13
2,496,230	1/50	Peterson	248—157
2,575,965	11/51	Malm	211—182 X
2,729,414	1/56	Clark	248—214
2,842,414	7/58	Wolff	248—191
2,875,006	2/59	Hale	112—217.1
2,963,127	12/60	Manville	248—354 X
3,063,770	11/62	Hale	248—157 X
3,082,677	3/63	Pease	248—148 X

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