

May 30, 1939.

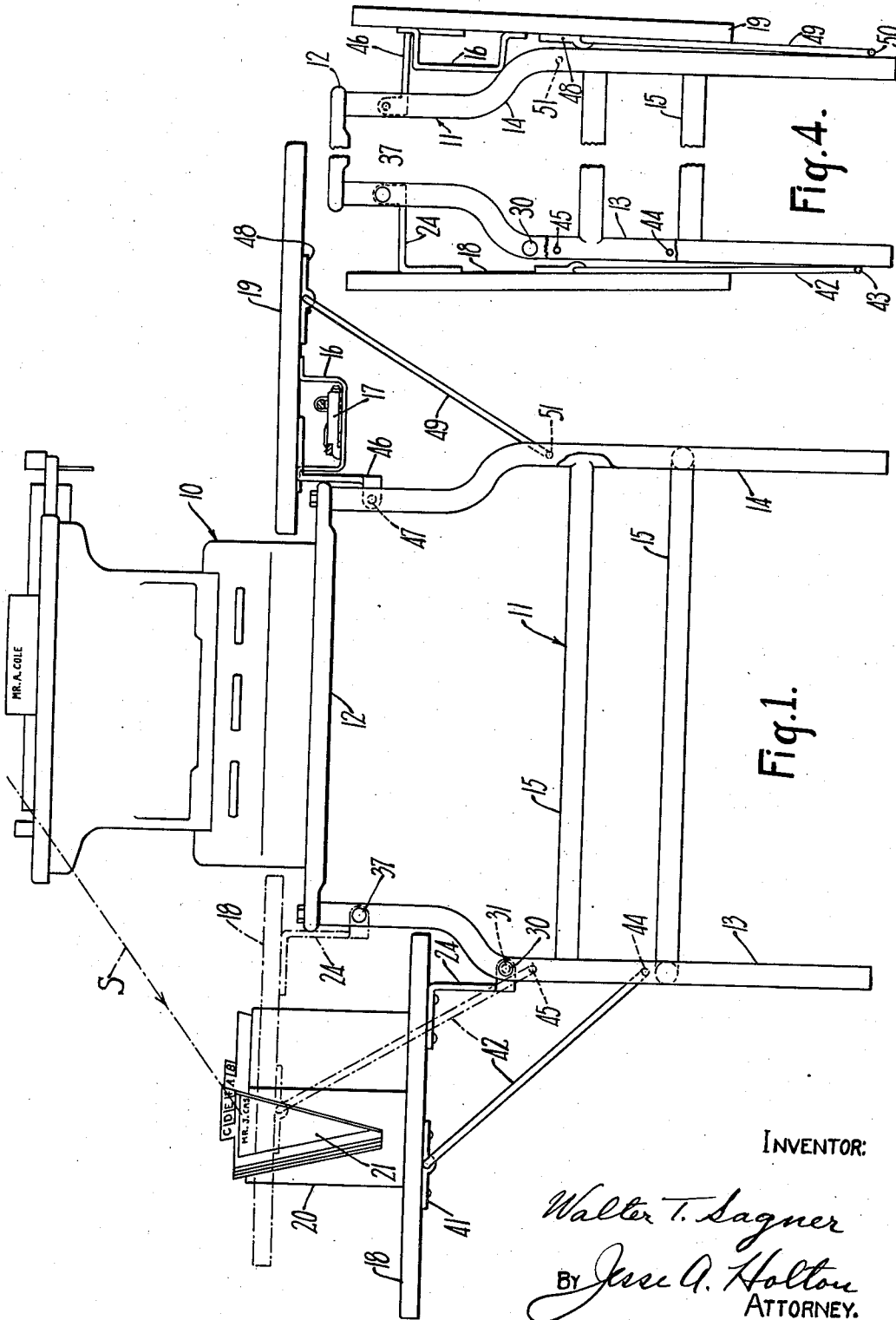
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2,160,289

BUSINESS MACHINE STAND

Filed Oct. 8, 1937

2 Sheets-Sheet 1



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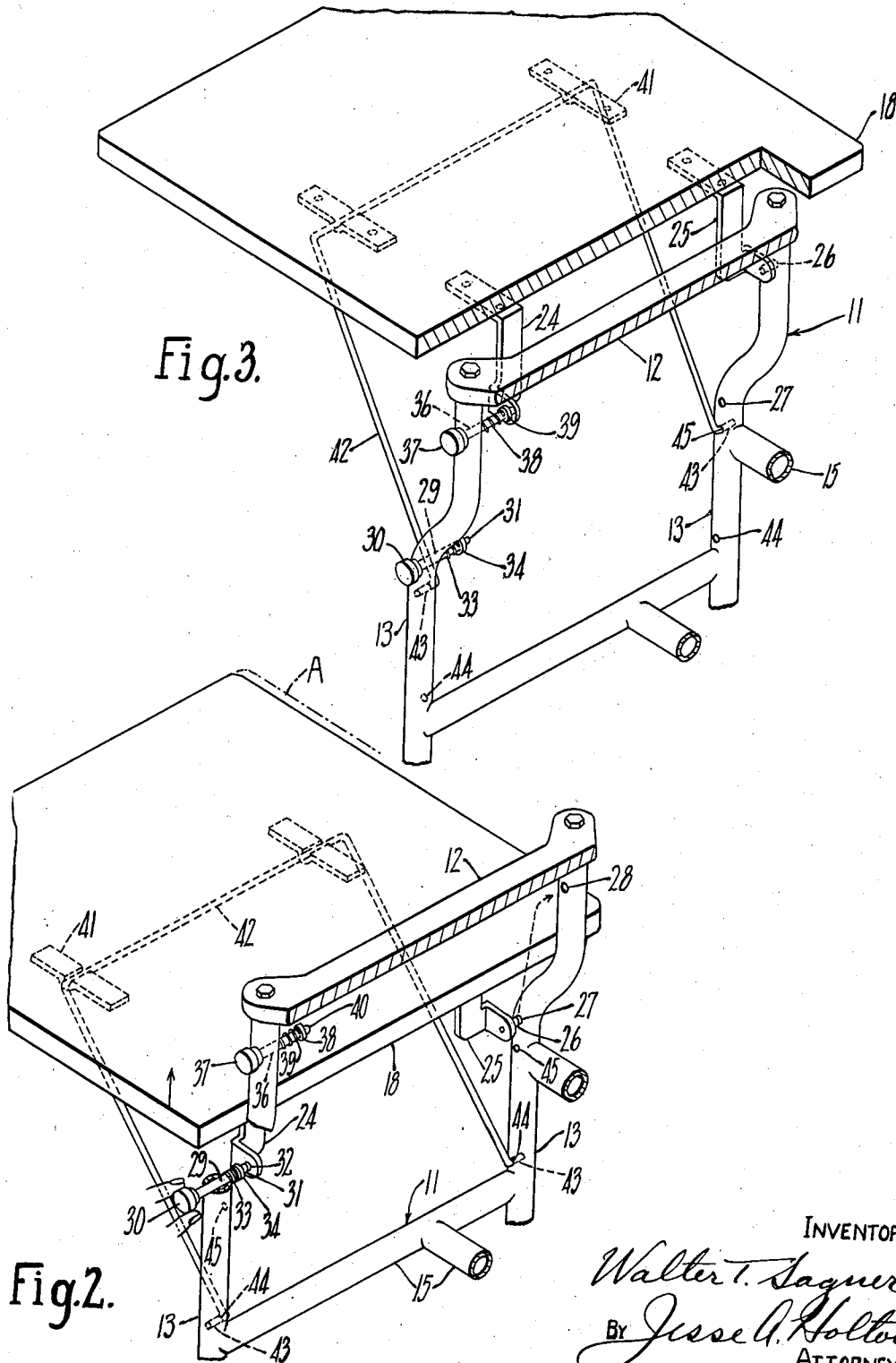
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UNITED STATES PATENT OFFICE

2,160,289

BUSINESS MACHINE STAND

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Application October 8, 1937, Serial No. 168,046

2 Claims. (Cl. 45—90)

This invention relates to stands or tables for the support of business machines for convenient operation thereof, and more particularly, to the auxiliary shelf or drop-leaf thereon, provided for holding reference data required in operating the machine.

The present invention has reference especially to stands for bookkeeping machines, the uses of which, being varied, may require the positioning of the auxiliary shelf at one of several elevations relative to the bookkeeping machines in addition to being foldable against the side of the stand. For example, in certain processes of bookkeeping, such as billing, an upstanding file unit or sheet-holder is used, for which purpose the shelf supporting same is adjusted to low position so that the file sheets may be conveniently accessible for transfer to the machine, the file guides being readily visible by the operator. Other work may be done on the bookkeeping machine for which the shelf is preferably elevated.

In view of the above, it is the general aim of this invention to provide a simple and rugged structure for the support of an auxiliary shelf on the bookkeeping-machine stand, the supporting structure being so organized as to facilitate rapid and convenient setting of the shelf selectively to the desired elevation.

A feature of the invention, is that providing adjustment to one of several elevations for the shelf so that the change may be effected without entirely detaching or separating the shelf from the stand and thereby accomplishing the change in a rapid and convenient manner. In addition to the features permitting change in elevation of the shelf, the supporting structure also permits of collapsing or folding the shelf to depend along the side of the stand when its use is not required.

The improved shelf-supporting structure embodies a pair of brackets or lugs forming a swingable connection to the stand at the contiguous margin of the shelf. The mentioned brackets have a pin-and-notch connection with the corresponding legs of the stand, at least one of the pins being retractable to facilitate disconnection as required to change the shelf in elevation.

The overhanging portion of the shelf is braced for support on the stand legs, the bracing preferably forming a bail having a pivotal mounting at an outer part of the shelf and being separably and flexibly associated with the stand legs, at the other end. The bail or brace, being of U form, permits flexure of the co-extensive arms

thereof so that studs terminating the arms, may be sprung toward each other to permit withdrawal from the engaging recesses of the stand and re-insertion in other recesses affording a varied elevation of the shelf.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a front elevation of the entire bookkeeping-machine stand including right and left shelves thereof, the left shelf being shown at lower position, full lines, and in phantom at elevated position.

Figure 2 is a fragmentary perspective view of the stand, shown in Figure 1, and illustrating the left shelf in lower position preparatory to elevating same.

Figure 3 is a view similar to Figure 2 but showing the shelf at elevated position; and

Figure 4 is a front elevation of the stand showing the shelves thereof folded to depend along the sides of the stand.

An Underwood bookkeeping machine 10 is supported by a stand 11, which has a top 12 secured to a frame structure including two left legs 13 and two right legs 14, braced by spreaders or cross-bars 15. The stand 11 has an adjustable side table-leaf or shelf 18 on the operator's left and a table-leaf 19 on the operator's right, beneath which is a small storage shelf 16 where the operator may conveniently store a control-rack unit 17, a detachable mechanism of the bookkeeping machine, when substitution by another like unit on the machine is desired. When shelf 18 is in the lower position a sheet holder 20 of a standard make may be placed thereupon and the operator may conveniently look into the holder 20 from his seated position in front of the machine to read a bill 21 or the like, as indicated by the broken-line sight S, in Figure 1.

The shelf 18 is adjustable in elevation to assume upper and lower positions or levels relative to the top of the stand. Accordingly, the shelf 18 has a front bracket 24 and a rear bracket 25 secured thereto, by which the shelf 18 is pivotally and removably attached to the stand 11. The rear bracket 25 has a hinge point or pin 26 thereon normally engaging a companion point or recess 27 in the lower portion of the rear leg 13 with the shelf 18 in lower position, a similar recess 28 in the upper portion of the leg 13 being provided for the elevated position of the shelf 18. The lower portion of each leg is offset outwardly, laterally of the stand, by elbows as will be obvious from Figures 1 and 4. The forward part

of shelf 18 is supported in the lower portion of the front leg 13 by a retractable, spring-pressed pin 29, having a projecting end 31 engageable in an aperture 32 of the front bracket 24, the pin 29 and the aperture 32 co-operating with the pin 26 and its recess 27 to support the table leaf 18 with its inner margin portion adjacent the stand 11, that is, nested within the corner formed by the upper leg portion and the elbow bend. The pin 29 is slidably journaled in the front leg 13 and includes a knob 30 for convenient retraction and is yieldably held in engagement with the aperture 32 by a spring 33 abutting the leg 13 and a collar 34 on the pin 29. For securing the shelf in elevated position, the front leg 13 also carries in its upper portion a retractable pin 36 which includes a knob 37 and a collar 38 against which a spring 39 presses to slidably hold an end 40 of the pin engaged in the bracket aperture 32.

The shelf 18 is further supported, adjacent its free end, by an angle brace or strut device comprising a bail 42 flexibly and slidably connected at its medial portion to the end side of the shelf 18 by journals 41, the co-extensive arms or struts of the bail 42 terminating in fore and aft directed studs 43 engageable in recesses 44 for lower position of the shelf, or in recesses 45 for elevated position thereof. The bail 42 being resiliently constructed, has the arms thereof capable of flexure toward each other to facilitate retraction of the studs 43 from the recesses 44 or 45 selectively in effecting the desired placement of the shelf.

When it is desired to raise the shelf 18 to its upper position or level, whereat its inner margin overtops the stand vertically above the upper portions of the legs 13, as shown in dot and dash, Figure 1, the knob 39 is pulled to release the pin end 31 from bracket aperture 32 of the shelf and at the same time the shelf is slightly moved forwardly, Figure 2, from its normal position, indicated by the broken line A, to free pin 26 from the aperture 27 in the rear leg 13, the shelf being slidable on the bail for limited forward movement. Shelf 18 is now partly supported on the bail 42, and can easily be tilted to position so as to insert the pin 26 in the upper hole 28, while at the front, the shelf is secured by inserting the pin 36 into the aperture 32 of bracket 24, the pin-end 40 being temporarily retracted to facilitate alignment of the aperture 32 with the pin-end 40. To now bring the shelf 18 to horizontal position, inward pressure is applied to the two arms of bail 42, to withdraw the studs 43 from holes 44 so that bail 42 may be raised and the studs 43 inserted in the upper holes 45. It will be apparent that, to lower the shelf 18 the procedure is substantially the same.

To bring shelf 18 to a collapsed pendent position the studs 43 of bail 42 are disengaged from apertures 45 and bail 42 and shelf 18 are allowed to swing down to a vertical position as shown in Figure 4. The brackets 24 space the thus dropped shelf 18 away from the upper portions of the legs 13 to permit the shelf to hang parallel to and close against the lower portions of the legs 13.

The right shelf 19 may be similarly dropped and therefore has two brackets 46 pivoted on pins 47 journaled in the right-hand legs 14 of the stand. A bail 49 is pivoted in journal-plates 48

and the ends are bent to form studs 50 which engage apertures 51 in the legs 14. To collapse the right shelf 19 inward pressure is applied to the downwardly projecting legs of the bail 49 to free the bail studs 50 from holes 51 and the shelf 19 will thus hang on the pins 47 in a vertical position as shown in Figure 4.

From the foregoing it will be seen that the invention provides, in addition to other features and advantages, a work shelf in novel association with a stand for business machines and offset therefrom by improved supporting means affording selective positioning of the shelf at various elevations and without necessitating the complete detachment thereof from the stand, also permitting the folding of the shelf against the stand for compactness, when its use is not required.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. In a business machine stand; a pair of front and rear legs at one side, each leg having a lower portion offset outwardly, laterally of the stand, from an upper portion by elbows, a side table leaf having depending brackets presenting, below the underside of said leaf, hinge points detachably receivable by companion points on the upper portions of said legs below the stand top, said points and brackets being adapted to dispose said leaf at a level and so that its inner side margin overtops the stand vertically above the upper portions of said legs, said offset lower portions of the legs presenting points, offset outwardly from the upper leg portion points, to receive said bracket hinge points to place said table leaf alternatively at a lower level whereat said inner leaf margin is nested substantially within the corner formed by the upper leg portions and the elbow from the upper leg portions, and a strut device adjustable to support said table leaf at either level.

2. In a business machine stand; a pair of front and rear legs at one side, each leg having a lower upright portion offset outwardly, laterally of the stand, from an upper portion by elbows, a side table leaf having depending brackets presenting, below the underside of said leaf, hinge points detachably receivable by companion points on the upper portions of said legs below the stand top, said points and brackets being adapted to dispose said leaf at a level and so that its inner side margin overtops the stand vertically above the upper portions of said legs, said offset lower portions of the legs presenting points, offset outwardly from the upper leg portion points, to receive said bracket hinge points to place said table leaf alternatively at a lower level whereat said inner leaf margin is nested substantially within the corner formed by the upper leg portions and the elbow from the upper leg portions, and a strut device adjustable to support said table leaf at either level, said table leaf being adapted to be dropped about its hinge points in the upper leg portions, said brackets being adapted to space the dropped leaf outwardly from the upper leg portions so that said leaf may hang substantially parallel with and closely against the upright lower leg portions.

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