

[54] **DESK HAVING ELECTRICAL SUPPLY LINES WHICH ARE LAID IN THE TABLE**

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[51] Int. Cl. **A47b 51/00**

[58] Field of Search..... 312/223, 278, 210; 108/102

[56] **References Cited**

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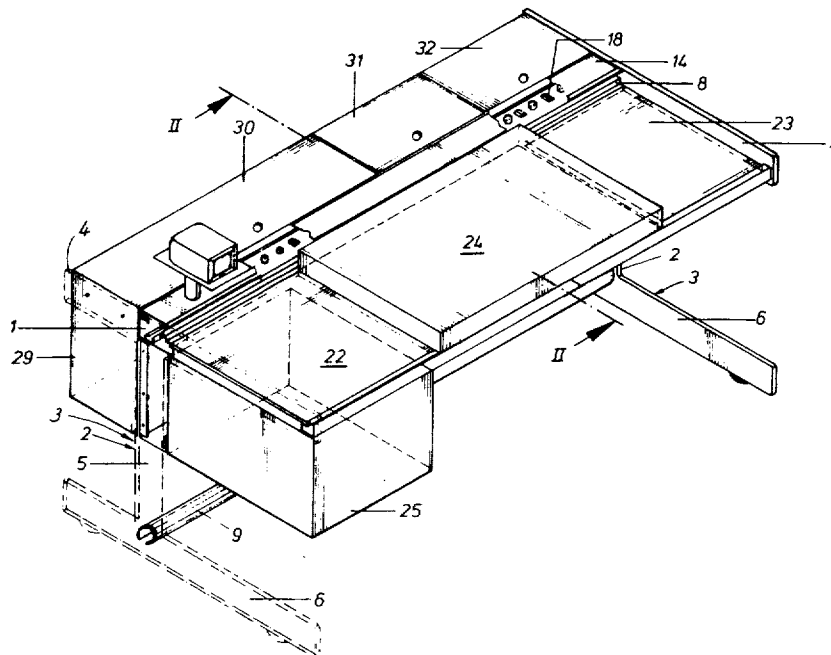
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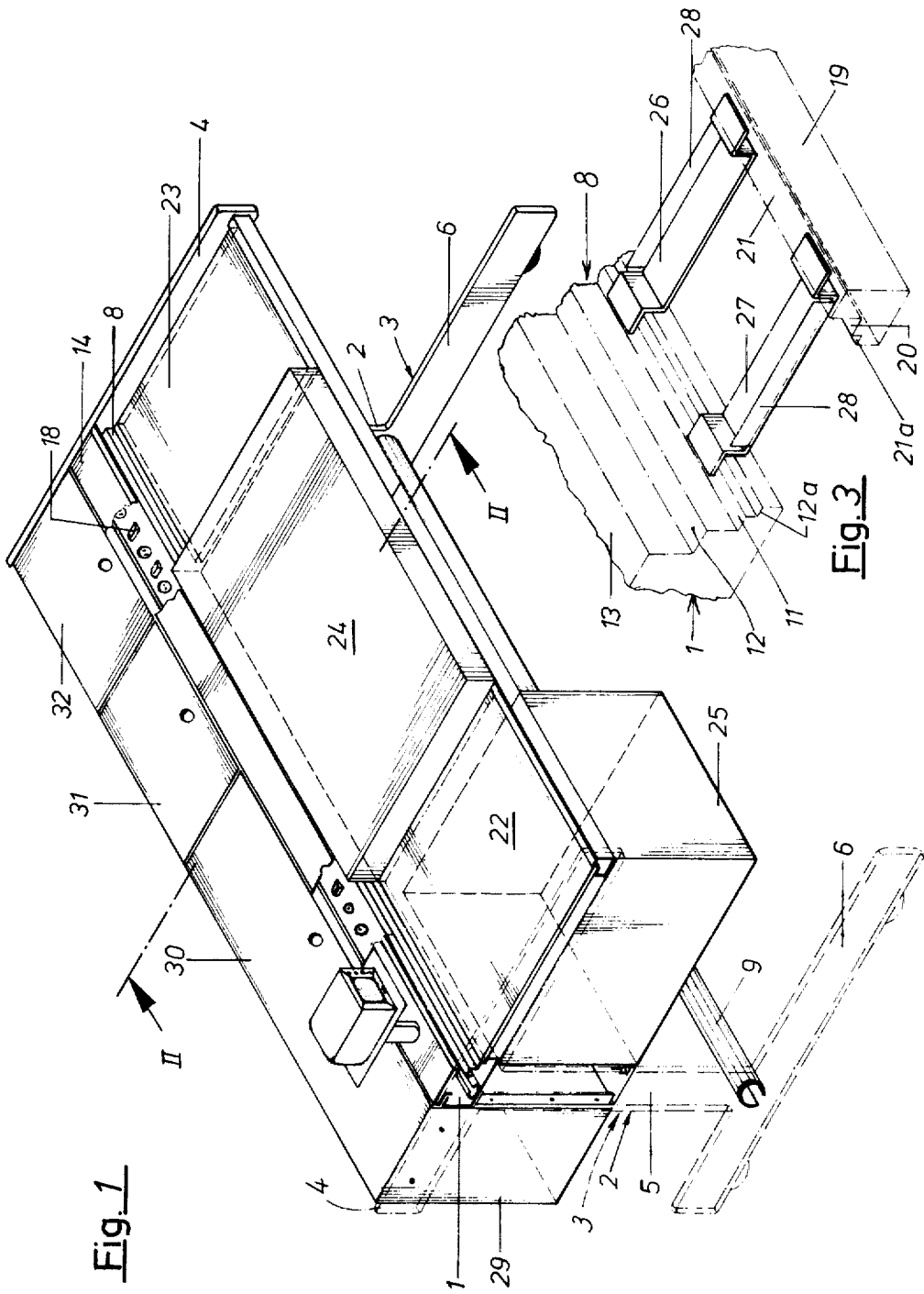
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[57] **ABSTRACT**

Desk having internal power supply lines together with adjustable and/or replaceable working surfaces. A hollow beam is provided lengthwise of the desk and supported by and between appropriate, usually hollow, end members. The supply lines are brought up through, or along, the end members and into said beam which latter may be open along one side or at the top for appropriate exiting of said lines. The surface of said beam facing the user of the desk is stepped. A second beam is positioned parallel with the first beam likewise supported on the end members and has a stepped surface facing the first beam. The steps are coplanar. Thus, working surfaces comprising either hollow boxes or plates may be positioned as desired on said coplanar, usually upper, stepped surfaces and, if desired, containers as for files or other working material may be suspended from other, as lower, coplanar stepped surfaces.

11 Claims, 5 Drawing Figures





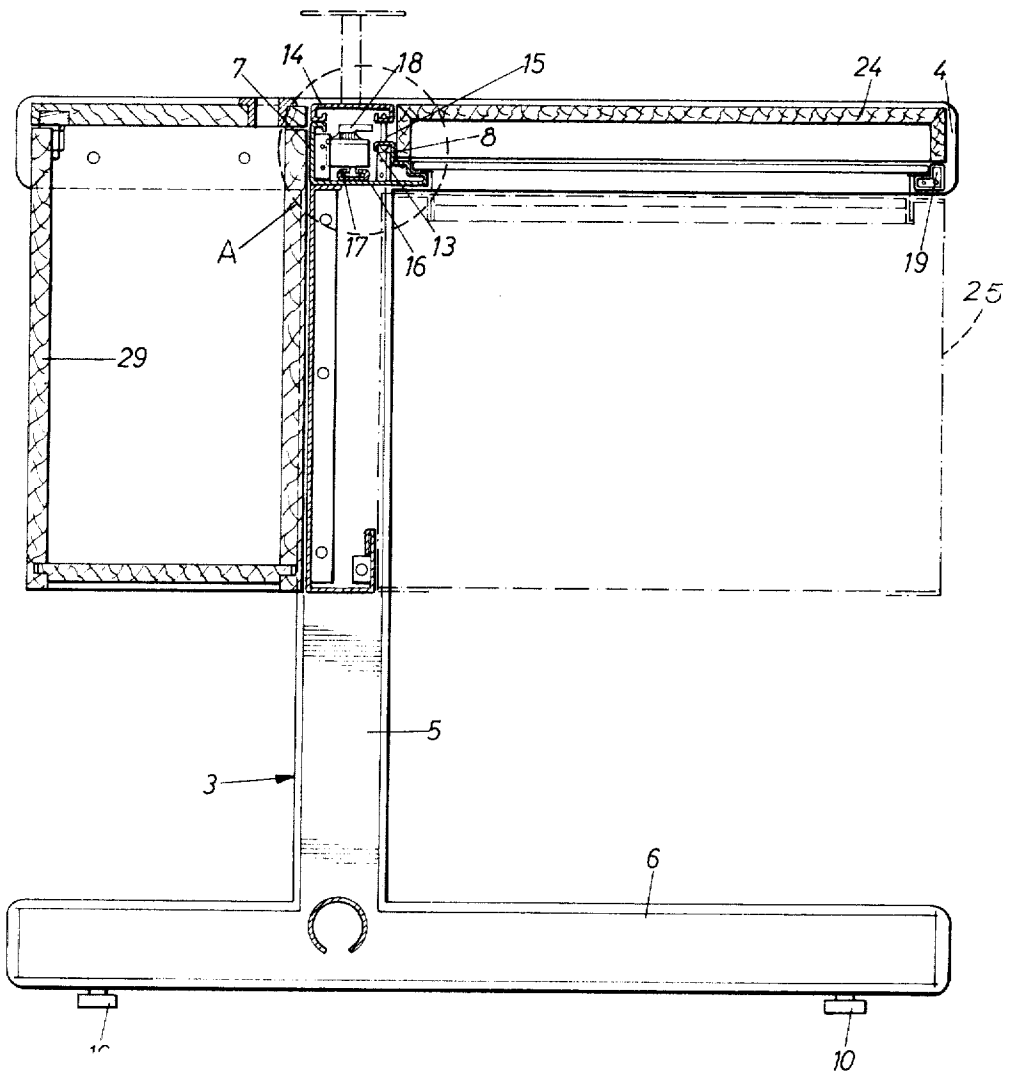


Fig. 2

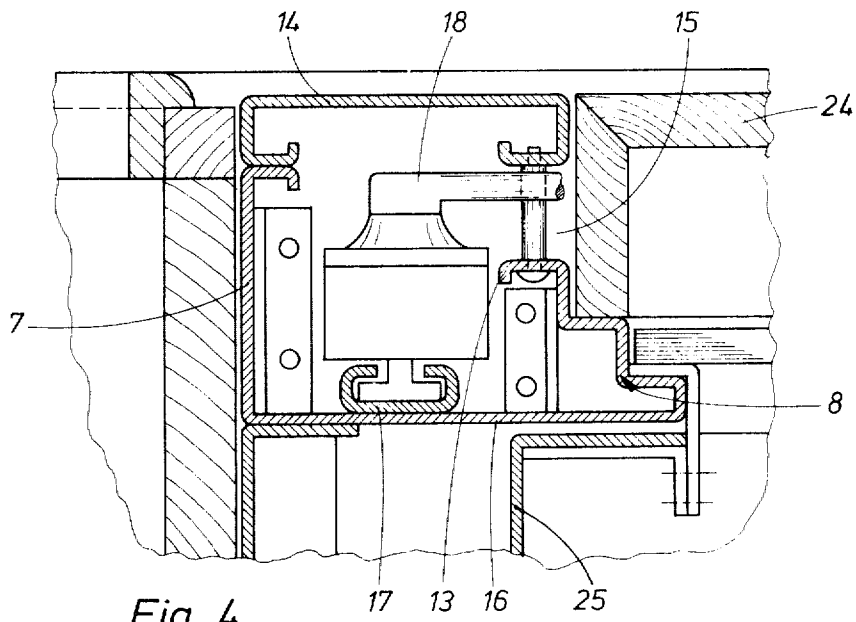


Fig. 4

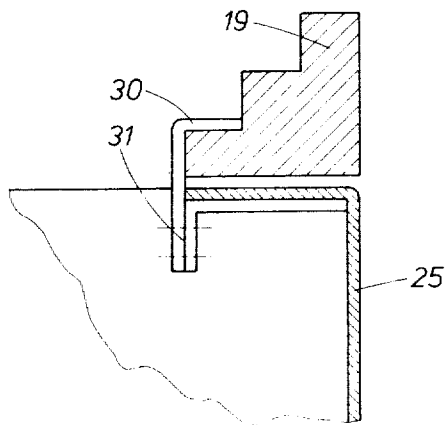


Fig. 5

DESK HAVING ELECTRICAL SUPPLY LINES WHICH ARE LAID IN THE TABLE

FIELD OF THE INVENTION

The invention relates to a desk having electrical supply lines which are laid in the table for connecting various items of apparatus, as for example calculating machines, typewriters, telephones, picture screens, computers, micro-reading apparatus, etc., namely a desk having a work surface which can be composed of several plates.

BACKGROUND OF THE INVENTION

The number of kinds of apparatus which are associated with a work place increases constantly so that both the storing of the apparatus on or in the desk, the provision of power supply lines and particularly their location in the table, all bring about considerable difficulty if at the same time the common functions of the respective desk are not to be adversely affected, as for example, in the case of a desk, the accessibility of the work surface and of shelves therein which are provided for receiving of files, card indices and the like.

In order to store in the case of a desk of the mentioned type apparatus and supply lines in a space-saving manner, the suggestion has already been made to construct a desk having side legs and electrical supply lines laid in the table in such a manner that it has for receiving the electrical lines an upwardly covered trough-shaped rail which extends parallel to the front edge and over the entire length of the table top, the cover of which rail lies in or approximately in the plane of the table top. The said trough-shaped rail is thereby connected fixedly to the side legs of the table. Said side legs are in turn advantageously connected to one another at their lower ends by a support which extends parallel to the trough.

The purpose of the invention is a further development of the desk according to the above-mentioned patent in a manner that the entire work surface can be composed of individual plates in a manner that the work surfaces which are formed by the individual plates can be of differing heights with reference to the floor.

SUMMARY OF THE INVENTION

According to the invention the work table which has been described above is constructed with a frame which is used for receiving the work plates, the longitudinal carriers of which frame are so profiled that they each form at least two support surfaces for the individual work plates, which support surfaces are offset laterally to one another and are vertically spaced. The height of the steps and the height of the work plates is thereby advantageously selectable so that the plates which in the operating position lie lower can be moved underneath the ones which are positioned higher.

BRIEF DESCRIPTION OF THE DRAWINGS

One exemplary embodiment will be described hereinafter in connection with the drawings.

FIG. 1 is a perspective view of a desk according to the invention;

FIG. 2 is a cross-sectional view along the line II—II of FIG. 1;

FIG. 3 is a fragmentary oblique view of a portion adjacent the plane of the line II—II of FIG. 1 in an en-

larged scale and showing support rods for the typewriters;

FIG. 4 is a detail on an enlarged scale of the portion within the circle A of FIG. 2; and

FIG. 5 is a fragmentary detail showing somewhat schematically one means by which a file box may be supported.

DETAILED DESCRIPTION

In FIG. 1, reference numeral 1 identifies a groove-shaped rail or trough which extends parallel to the front edge of the desk and at its ends is connected to side legs 2 and 3 of the table. The side legs which all together are identified with reference numerals 2 and 3 can be constructed as walls or, as is shown in FIG. 2, as a frame in the form of a H lying on its side. Each framelike side leg consists of an upper arm 4, a vertically extending support 5 and a lower arm 6. Arms and supports are advantageously screwed together. It is therefore possible by exchanging the supports or the arms or both to manufacture side legs of various widths and heights and by using various long troughs in connection with various side arms a large number of different desks.

The sidewalls 7 and 8 of the trough 1 are bent at the front sides and are fixedly connected with the bent parts to the side legs. Thus all together a distortion-free frame is created on which the remaining parts of the desk can be secured. Further, the supports 5 are connected by a rod 9 which contributes considerably to the solidity of the frame. Feet 10 are secured to the lower arm, which feet can be adjusted in height.

The side legs consist of hollow profiles. The upper arms 4 have notches in the sidewalls which are oppositely positioned to the trough 1. Thus it is possible to introduce supply lines from below through the arms and supports into the trough 1, however, it is also possible to guide such supply lines through the coaxial openings of the upper arms to the desks, which are connected to the illustrated table.

The front wall 8 of the trough 1 is, as is illustrated in FIGS. 1 and 3, constructed steplike, that is it forms three steps 11, 12 and 12a. Its upper edge 13 is flanged to the inside and lies, as illustrated in FIG. 2, lower than the also inwardly flanged edge of the back wall 7 (FIG. 2). The trough 1 is covered by a closure 14, the edges of which are also flanged twice at 90°. Between the front edge of the closure and the part 13 of the front wall remains a gap 15 through which connecting lines which lead to the various items of apparatus can be pulled out at any desired point of the trough. Guide rails 17 for receiving electrical apparatus as for example receptacle outlets 18 are secured on the bottom of the trough.

At the front ends of both arms 4 parallel to the trough 1 there is secured in horizontal position a beam 19 which is also constructed steplike and forms three bearing surfaces 20, 21 and 21a. The surfaces 11 and 20 or 12 and 21 or 12a and 21a are positioned at equal height. They serve as supports for individual work plates or a box-shaped container 25 in any convenient manner, such as by angles 30 which may be fastened, as by riveting at 31, to an appropriate portion of said file box. FIG. 1 shows smooth plates 22 and 23 and a box-shaped work plate 24 which is illustrated in a cross-sectional view in FIG. 2. The work place thus offers work surfaces of various heights, namely work surfaces at various levels above the floor. The level of the

steps 11, 12 or 20, 21 is chosen in such a manner that the plates 22, 23 can be moved as desired below the box plate 24, for example to make accessible the movable container 25 which can serve to receive a suspended filing system. The movability of the container 25 permits same to be moved into a position which is most desirable for each type of work. For example, it is possible to move the container alongside the work plate 23 if work is to be done on this plate which requires the filing cards or the like which are stored in the container 25. Since the plate 24 also can be shifted, access to the container 25 can also be obtained if same is positioned alongside of the plate 23.

If the desk or the work table is to be used for typewriters, then it is possible in order to achieve a low support height to replace the plates 22 by hangers 26, 27 which are illustrated in FIG. 3. They are bent flat bars having lateral walls 28 to prevent slipping off of the typewriter.

In the illustrated exemplary embodiment an elongated box 29 which can be suitably divided belongs to the equipment of the work table. A three-part division is provided in the exemplary embodiment which is characterized by lids 30, 31, 32. These boxes may be at least partly used to store the private articles of the user of the desk. The trough 1 which receives the electrical supply lines thus separates the private section from the work section of the desk.

Although a particular preferred embodiment of the invention has been disclosed above for illustrative purposes, it will be understood that variations or modifications thereof which lie within the scope of the appended claims are fully contemplated.

The embodiment of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A desk having a front and a back and two sides, comprising:

frame means comprising a pair of horizontally spaced side members and first and second horizontally spaced wall means secured to and extending between said side members;

first stepped surface means on said first wall means facing said front of said desk and second stepped surface means on said second wall means facing said back of said desk and opposing said first stepped surface means, said first and second stepped surface means each comprising a plurality of horizontally offset, vertically spaced and upwardly facing surfaces, the lowermost surface of each of said stepped surface means being spaced closer to each other than any of the remaining surfaces, each of said upwardly facing surfaces on one of said stepped surface means being coplanar with the corresponding upwardly facing surface on the other of said stepped surface means; and

a plurality of laterally spaced support surface means each including guide means slidably mounted on

a pair of said coplanar upwardly facing surfaces and adapted to slide along the length of said upwardly facing surfaces between said side members, the width of each of said support surface means being sufficient to occupy the space between said pairs of coplanar upwardly facing surfaces but no wider or narrower than the width of the spacing between a pair of coplanar upwardly facing surfaces on which said support surface means is supported, one of said support surface means being vertically spaced from the other of said support surface means to facilitate a lateral sliding movement of said support surface means to a position vertically aligned with at least one of the other of said support surface means.

2. The desk according to claim 1, wherein said first wall means comprises an elongated hollow beam, one wall of which has said first upwardly facing surfaces formed therein.

3. The desk according to claim 2, wherein said second wall means comprises an elongated beam, one wall of which has said second upwardly facing surfaces formed therein.

4. The desk according to claim 3, wherein the space between said first and second upwardly facing surfaces is open in a downward direction to facilitate the support of a downwardly depending upwardly opening container coverable by at least one of said support surface means.

5. The desk according to claim 2, wherein said elongated hollow beam includes means defining an upwardly facing opening therein for providing communication to the interior thereof and cover means for covering said upwardly facing opening.

6. The desk according to claim 5, including means defining an elongated gap between said cover means and said beam.

7. The desk according to claim 6, including electrical means mounted in said hollow beam, said electrical means comprising electrical lines which are adapted to extend through said gap means.

8. The desk according to claim 2, including electrical means mounted in said hollow beam.

9. The desk according to claim 1, wherein said guide means includes hanger means which are adapted to be supported on and extend between said first and second upwardly facing surface.

10. The desk according to claim 1, wherein at least one of said first and second wall means is located intermediate the front and back of said desk; and including storage means mounted on the opposite side of said one of said first and second wall means from said plurality of support surface means.

11. The desk according to claim 1, wherein said first and second upwardly facing surfaces are of a monolithic construction.

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