Feb. 6, 1968 C. J. BARECKI 3,367,290

TABLE AND CABINET COMBINATION

Filed Jan. 25, 1967 2 Sheets-Sheet 1

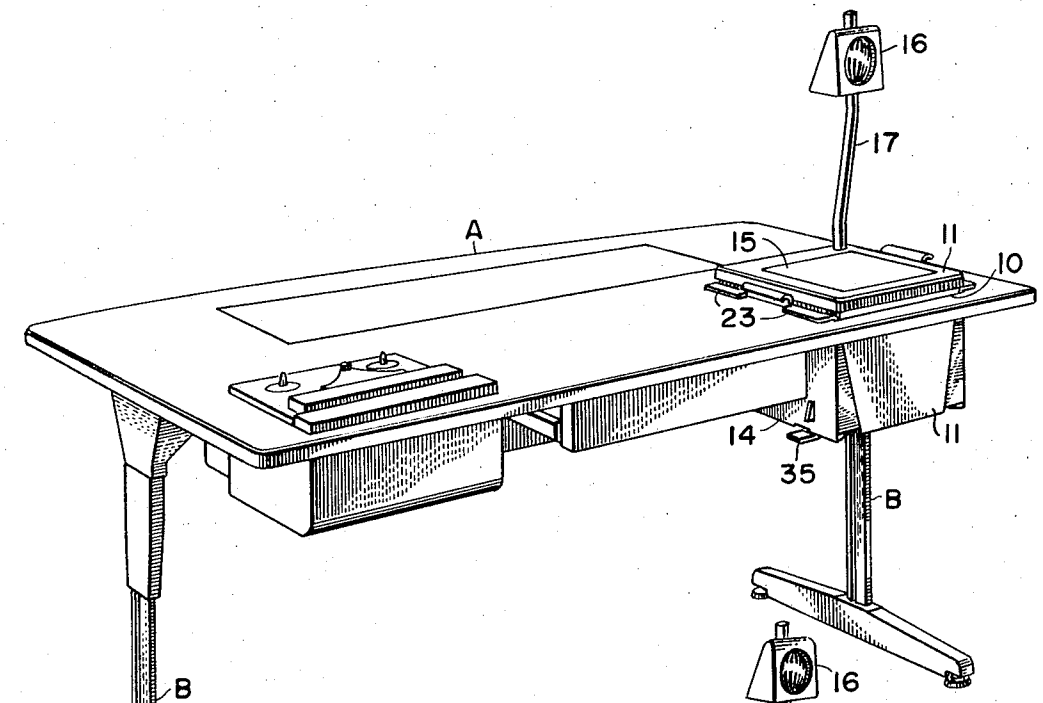



FIG. 1

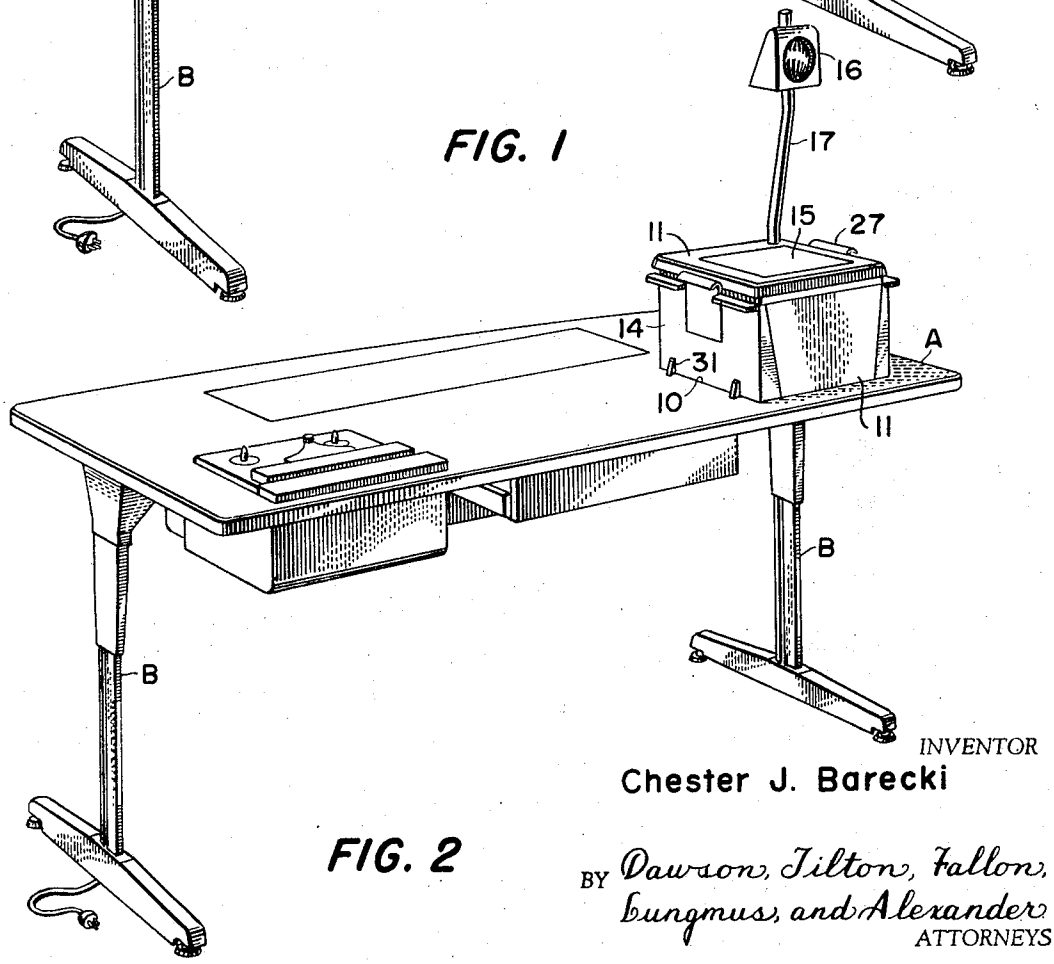



FIG. 2

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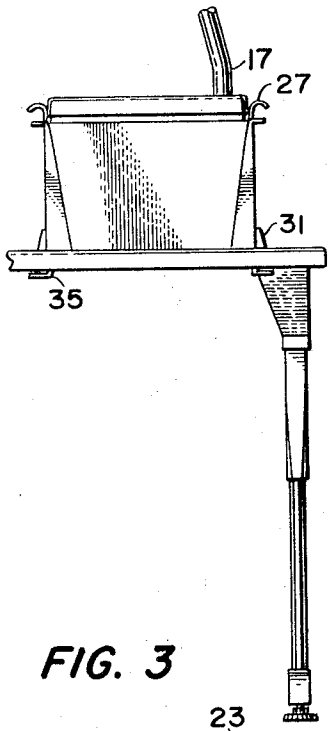



FIG. 3

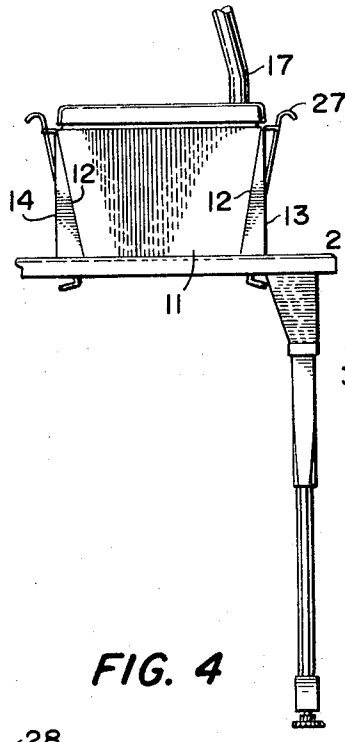



FIG. 4

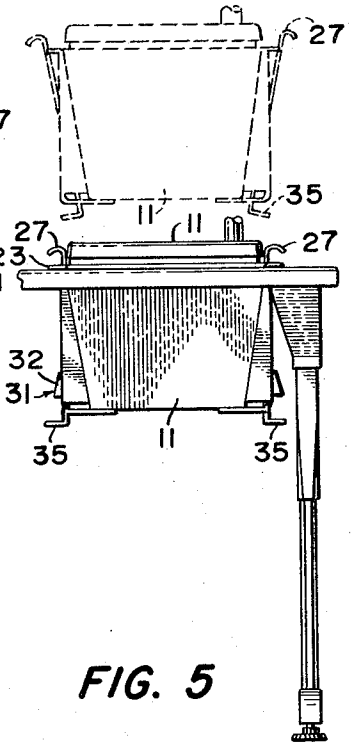



FIG. 5

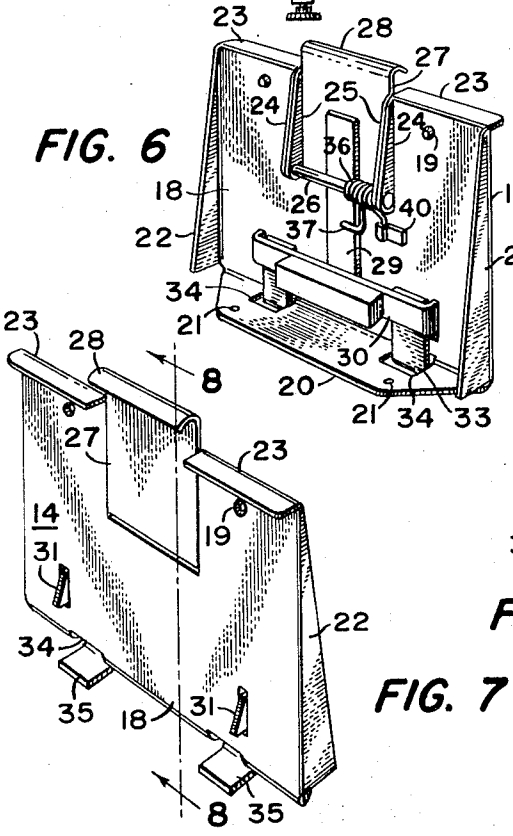



FIG. 6

FIG. 7

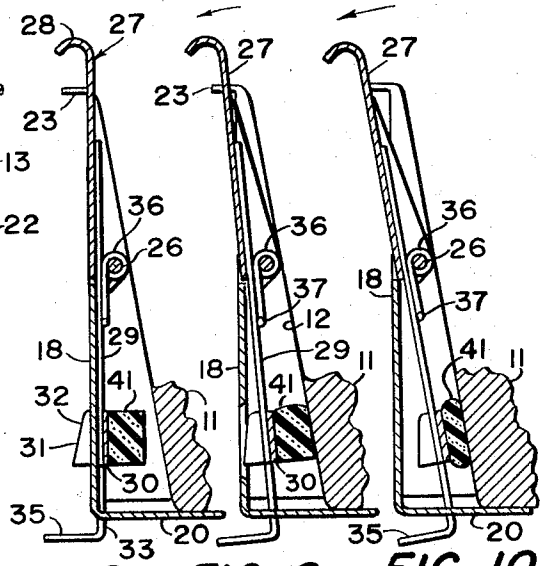



FIG. 8 FIG. 9 FIG. 10

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# TABLE AND CABINET COMBINATION

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6 Claims. (Cl. 108—50)

## ABSTRACT OF THE DISCLOSURE

In a teacher's console, a projector may be used in elevated position while the teacher is standing or in lowered position when the teacher is sitting. The cabinet of the instrument is provided with side panels slidably mounted in an opening in the console table, and pivotally-mounted handles are equipped with latch means for maintaining the cabinet in raised position, for removing the cabinet, or for releasing the latch and lowering the cabinet, and also equipped with resilient or cushioning means to aid in the operations.

### *Brief summary of the invention*

In a teacher console, it is desired to have the teacher's table provided with a well or opening in which is mounted for vertical movement a transparency projector or other demonstration instrument. The instrument receives transparency slides from which the image is projected upwardly through an overhead projector having a lens which directs the image rearwardly onto a screen (not shown) located behind the teacher console. When the teacher is seated, it is desired to have the projector cabinet in a lowered position, as shown in FIG. 1. When the teacher wishes to stand, it is desired to have the projector cabinet raised, as shown in FIG. 2.

The cabinet has downwardly- and inwardly-inclined side, and is equipped also with side panels which are generally vertical and which are secured to the cabinet, providing an intervening space between the side panels and cabinet. Handles are equipped with means for limiting upward movement of the cabinet and for latching and stabilizing the cabinet in raised position. The handles are pivotally mounted upon the side panels, and spring and cushion means are provided whereby the operator can quickly and securely bring the cabinet into raised and latched position while permitting controlled lowering of the cabinet. The handle mechanism further permits removal of the cabinet entirely from the table.

### *Drawings*

In the accompanying illustrative drawings, FIG. 1 is a perspective view of the table and cabinet combination embodying my invention, the view being taken from the rear side of the table; FIG. 2, a view similar to FIG. 1 but showing the cabinet in raised position; FIG. 3, a broken fragmentary side elevational view of the table and projector, the projector being shown in raised and latched position; FIG. 4, a view similar to FIG. 3 but showing the handles moved laterally sufficiently to permit removal of the cabinet from the table; FIG. 5, a view similar to FIG. 4 showing in dotted lines the cabinet removed from the table and showing in solid lines the cabinet in lowered position with the table; FIG. 6, a perspective view of the inner surface of one of the side panels; FIG. 7, a perspective view of the outer surface of the side panel shown in FIG. 6; FIG. 8, a broken sectional view of one of the side panels in normal latching position, the section being taken as indicated at line 8—8 of FIG. 7; FIG. 9, a view similar to FIG. 8 but showing the handle in unlatched position; and FIG. 10, a view similar to FIG. 9 but showing the handle in extreme extracted position for removal of the cabinet from the table.



### *Detailed description*

In the illustration given in the drawings, A indicates a table top equipped with leg supports B. The table may be of any suitable type or structure and may be in the form of a desk or the like. The table top A is provided at one side with an opening **10** which may be of any suitable shape but preferably is rectangular or square.

An instrument cabinet **11** having downwardly and inwardly-sloping sides **12** is provided with side panels **13** and **14**. The cabinet **11** may house any type of instrument which is to be raised or lowered. In the illustration given, the instrument is a projector having a flat transparent surface **15** adapted to receive transparencies and to project the image therefrom upon a raised lens projector **16** carried by mast **17**. The lens projector **16** directs the image upon a screen (not shown) at the rear of the teacher. Since the instrument is well known, a further detailed description herein is believed unnecessary.

With such a projector device or other demonstration device, it is important that the device be in lowered position when the teacher is sitting and in elevated position when the teacher is standing, and that means be provided for raising and lowering the cabinet with ease and accuracy.

The side panels **13** and **14** are alike and each has a generally vertical outer wall **18**. For a detailed description, side panel **14** will be described as the same is shown in FIGS. 6–10 inclusive.

The side panel wall **18** is provided near its top with openings **19** through which fastening means may be extended for securing the wall to the cabinet **11**. At its bottom, the wall **18** is turned laterally to provide a bottom flange **20**, which also is provided with openings **21** through which fastening means, such as screws, rivets, etc., may be extended to secure the flange to cabinet **11**. The wall **18** is provided with rearwardly-turned triangular side flanges **22** which cover the space between the side panel walls **18** and the cabinet walls **12**, this space being generally triangular in cross section.

The wall **18** is provided at its top with a rearwardly-extending flange **23** which serves to support the side panel when the cabinet is in lowered position. Wall **18** is cut away centrally, as shown best in FIGS. 6 and 7, and portions of the top flange **23** and the wall **18** are bent inwardly to provide a flange support **24**, as shown best in FIG. 6. Adjacent flange **24** is a flange **25** forming a part of handle **27**. The flanges **24** and **25** are apertured to receive a pivot pin **26**.

The handle member **27** is provided at its top with a crook portion **28** and has welded thereto an actuator bar **29**, which engages the pivot pin **26**. Thus the bar **29** forms a continuation or lower leg of the upper portion of the handle **27**. The lower end of bar **29** is welded or otherwise secured to a crossbar **30**, being turned outwardly to form latches **31**. The latches **31** preferably have inclined faces **32** to cause automatic latching as the cabinet is raised and as the inclined faces **32** engage the edges of the table opening **10**. Secured to the inner ends of the crossbar **30** are depending straps **33** which extend downwardly through openings **34** in the flange **20**. The ends of the straps **33** are turned outwardly to form stops or stabilizing flanges **35**.

In order to maintain the parts in the latched or normal position shown in FIGS. 6 and 8, I equip the pivot pin **26** with a coil spring **36**, one end of the spring having a finger **37** bearing against the handle leg **29** and the other end of the spring being anchored to a bracket arm **40**

welded to the inner surface of the wall **18**, as shown best in FIG. 6.

To enable the operator to manipulate the handles readily and accurately while reducing noise, etc., I equip the crossbar on the inner side thereof with a resilient cushion block **41** which may be formed of sponge rubber, foam plastic, etc. and secured to the crossbar **30** by adhesive or other suitable means.

Preferably, the dimensions of the resilient member **41** are such that when the latch member **31** is retracted for lowering the cabinet, the member **41** will strike the inclined wall **12** of cabinet **11**, and thus the operator will feel the engagement and will know that the cabinet can be released. In an extreme case where it is desired to withdraw the stop **35** also, so that the entire cabinet and side panels can be removed, the member **41** can be further squeezed to the extent shown in FIG. 10 and the cabinet may then be withdrawn, as illustrated in FIG. 5.

In the operation of the structure, the teacher may utilize the projector in the lowered position, as shown in FIG. 1, placing transparencies upon the top panel **15** of projector **11** and projecting the image, via the elevated projector **16**, upon the screen behind the teacher. Ordinarily, the teacher uses a pointer with respect to the transparency, and the pointer designation is similarly reproduced on the screen. When the teacher desires to stand while making the demonstration, he lifts the handles **27**, tilting them slightly outwardly to the position shown in FIG. 9, and the instrument is lifted until the flange stops **15** engage the bottom of the table top A, and then the spring-urged latch members **31** are released for engagement with the top of the table. If desired, a simple vertical movement of the handles is all that is necessary because the inclined faces **32** of latch members **31** move the members inwardly to the position shown in FIG. 9 until the table top A is cleared, and then the spring restores the latch members to the position shown in FIG. 8. The broad flange stops **35** stabilize the cabinet when it is in raised position.

For lowering the cabinet, the operator draws the handle members outwardly, as illustrated in FIG. 9, until he can feel the member **41** abut the cabinet wall **12**, and the cabinet may then be lowered until flanges **23** rest upon table top A.

While in the foregoing specification, I have set forth a description in considerable detail for illustrating a specific embodiment of the invention, it will be understood that such details may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

**1.** In combination with a table having an opening in the top thereof, a cabinet provided with downwardly- and inwardly-sloping sides and equipped with generally vertical side panels slidably mounted in said opening, said panels



having slots in their lower portions, handle members pivotally mounted on said side panels and having lower leg portions extending inwardly within the space between the side panels and sloping sides of the cabinet, latch members carried by said lower leg portions and extending outwardly through said slots in said side panels for engagement with the top of the table when the cabinet is raised, and stabilizing stop members carried by the lower extremities of said leg portions for limiting normal upward movement of the cabinet.

**2.** The structure of claim **1** in which said handle members are provided at their tops with lift crooks.

**3.** The structure of claim **1** in which said leg portions are provided on their inner sides with resilient cushion members.

**4.** The structure of claim **3** in which said cushion members normally abut the sides of said cabinet when said latch members are retracted inwardly out of contact with said table, said cushion members being further compressible to withdraw said stop members to permit their removal through said table opening.

**5.** The structure of claim **1** in which said latch members are provided with inclined faces for automatically retracting the latch members when the cabinet is raised.

**6.** In combination with a table top provided with a cabinet opening, a slide projector cabinet provided with downwardly and inwardly-sloping sides and equipped also with generally vertical side panels having slots therein, handle members pivotally mounted on said side panels and having upper portions turned outwardly and lower portions extending inwardly into the space between the side panels and below the side panels, latch members carried by the lower handle portions and extending outwardly through said slots in said side panels for engagement with the top of the table when the cabinet is raised, and stabilizing stop members carried by the lowermost portions of the handle members and adapted to engage the bottom of the table top to limit upward movement of the cabinet.


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