

Dec. 15, 1970

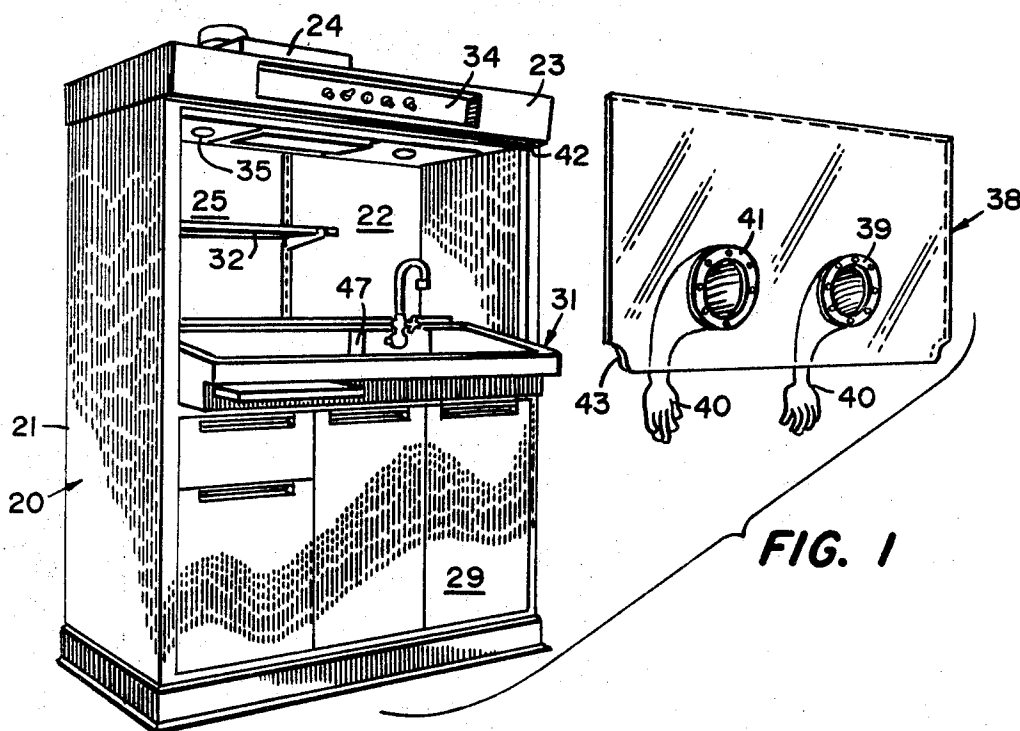
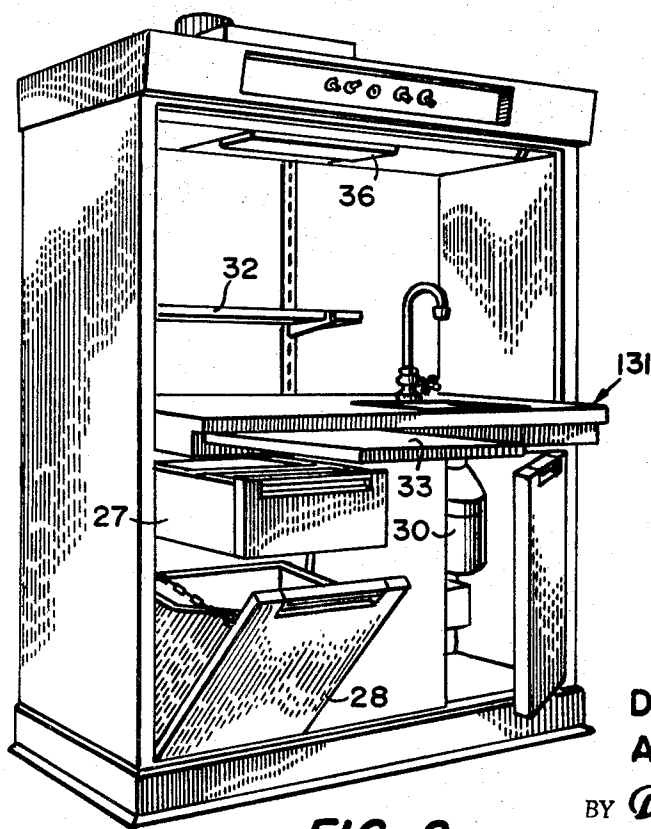
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3,547,505

BIOLOGICAL SERVICE CENTER

Filed July 9, 1969

3 Sheets-Sheet 1



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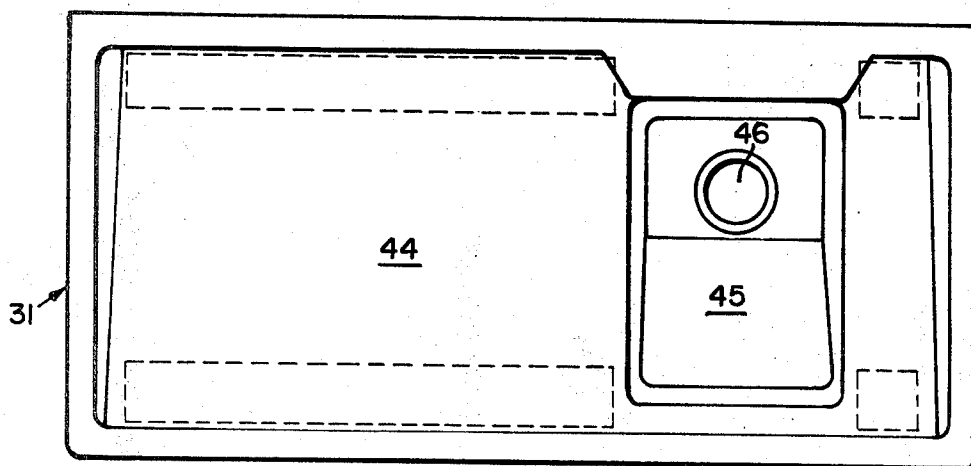


FIG. 3

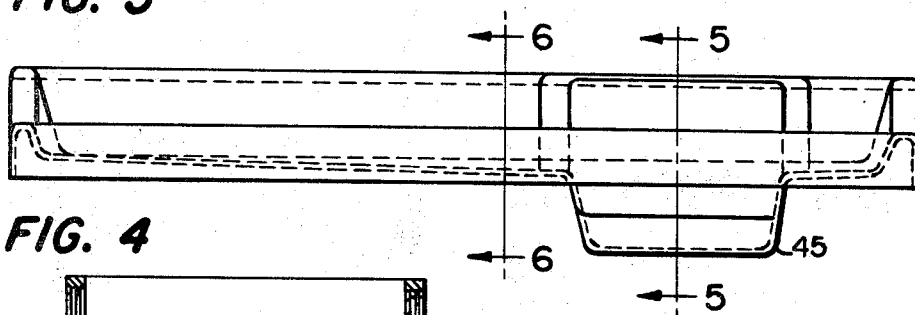


FIG. 4

FIG. 7

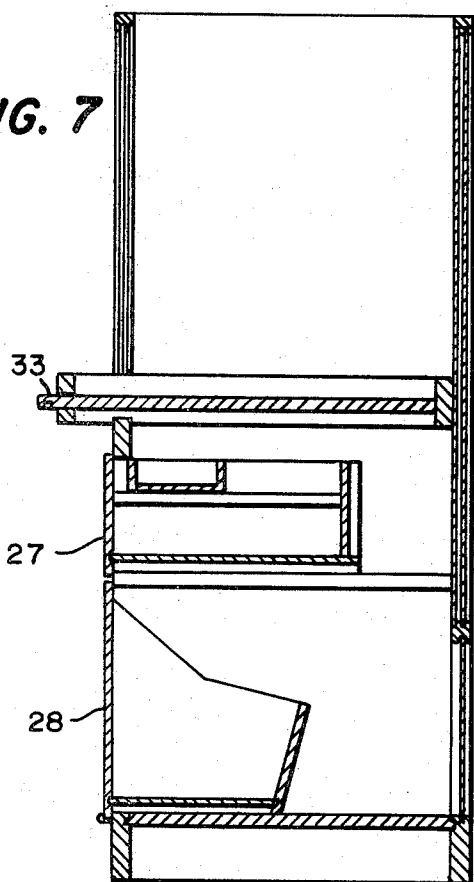
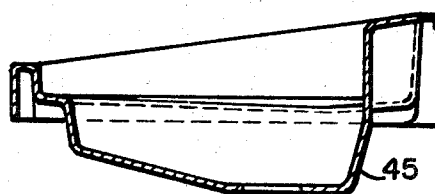


FIG. 5

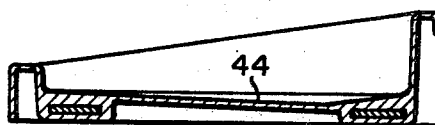


FIG. 6

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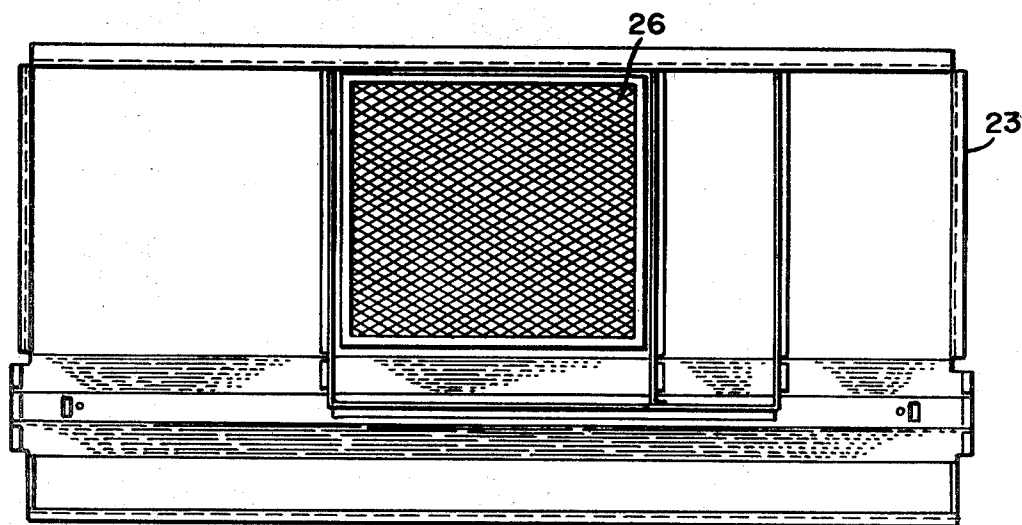
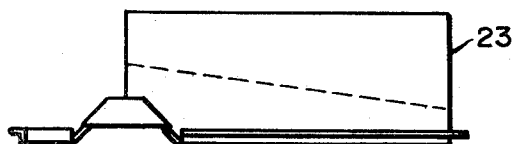
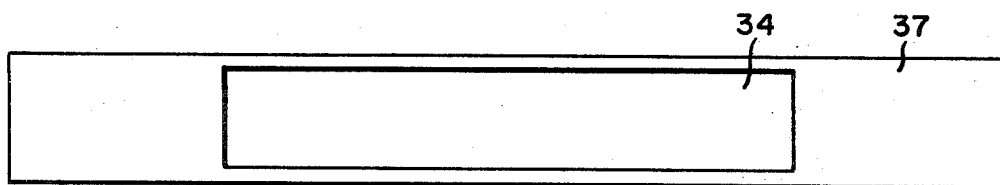
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BIOLOGICAL SERVICE CENTER

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U.S. Cl. 312-209

6 Claims

ABSTRACT OF THE DISCLOSURE

Biology study equipment including a generally rectangular casing having an upper portion accessible from the front for various operations under controlled conditions, and featuring in particular a novel sink arrangement for laboratory work, the lower portion of the enclosure providing storage facilities and spaces for the installation of utilities.

BACKGROUND AND SUMMARY OF INVENTION

In studying microorganisms, controlled conditions must be observed. These involve not only atmospheric conditions, but extend also to conditions of sterility, and, for the first time, a work center is provided that maximizes the achievement of all of the necessary conditions while at the same time providing extreme flexibility of operation.

DETAILED DESCRIPTION

The invention is described in conjunction with the accompanying drawings, in which:

FIG. 1 is an exploded perspective view of an embodiment of the invention;

FIG. 2 is a perspective view of a modified form of enclosure, which is also utilized in the practice of the invention;

FIG. 3 is a top plan view of the sink portion of FIG. 1;

FIG. 4 is a side elevational view of the sink of FIG. 3;

FIGS. 5 and 6 are sectional views taken along the side lines 5-5 and 6-6 of FIG. 4;

FIG. 7 is a vertical sectional view of the basic enclosure, but without the sink included;

FIG. 8 is a top plan view of the unit of FIG. 1, and showing the superstructure thereof;

FIG. 9 is a side elevational view of the superstructure of FIG. 8; and

FIG. 10 is a front elevational view of the control panel framing associated with the front part of the superstructure of FIG. 8.

In the illustration given, and with reference to FIG. 1, the numeral 20 designates generally a rectangular enclosure which is seen to include side walls 21 integrated with a rear wall 22. The superstructure 23 houses certain controls and other equipment, and constitutes the top wall of the enclosure. In particular, a fan unit 24 is supported on the superstructure which draws air from the enclosure 25, optimally at a face velocity of forty feet per minute. This not only maintains the interior space 25 comfortable, but also clears the gases therefrom which are heavier than air. For this purpose, the superstructure 23 (see FIG. 8) is equipped with an upwardly-facing grill 26 which communicates with the fan 24 (not shown in

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FIG. 8). The bottom portion of the enclosure 21 is utilized for the provision of drawer space, as at 27 and 28, while the right hand portion available through the doors 29 provides a facility for utilities, i.e., garbage disposal (see FIG. 2). The essential difference between the showing in FIGS. 1 and 2 resides in the character of the sink generally designated 31 in FIG. 1 and 131 in FIG. 2.

Also provided in the basic enclosure is a storage shelf 32 which constitutes a convenient mounting area for reagent bottles and the like. Immediately below the left hand portion of the sink is provided a pull-out panel or plate 33 (see FIGS. 2 and 7) which serves as a convenient work area for utilizing a microscope, writing, or doing microtome work. If a microscope is employed, it can be conveniently stored within the drawer 27.

The superstructure not only includes the control panel 34 for regulating the light, fan, etc., but provides a support for germicidal lamps, as at 35, and a fluorescent lamp section 36. The control panel 34 is provided as part of a frame structure 37 (see FIG. 10) which advantageously may be equipped with a transparent cover lockable in place so as to permit visual ascertainment of the setting of the controls, but being tamper-proof.

A glove port front, generally designated 38, is seen in FIG. 1. It will be appreciated that the same device may be used in connection with the embodiment shown in FIG. 2. The front 38 includes a panel of transparent plastic material, such as Plexiglas, in which apertures 39 are provided. A rubber glove 40 is provided for each aperture and held in place by suitable ring clamps 41. The front is inserted within a groove 42 provided in the underside of the superstructure, and fits into the sink 31, the corners of the panel being notched as at 43 to conform generally to the lower corner portion of the access to the space 25. Thus, a certain amount of air leakage occurs which insures that any noxious vapors are conducted out of the hooded space by the fan 24.

The sink 31 is seen in FIG. 3, and includes a counter top portion 44 which is sloped to the rear (see FIG. 6) as well as to the right. A depressed portion 45 is provided communicating via a drain connection 46 with the garbage disposal unit 30. The entire sink and counter is constructed of acid-resistant material, and is provided as an integral unit, being equipped with suitable apertures for utilities such as air and gas, as at 47 (see FIG. 1). Because of the pitch of the counter 44, the sink can be rinsed quickly and easily. Additionally, the sink projects—both in the version designated 31 and the version 131—outwardly of the unit so that a student can sit comfortably on a stool while performing work in the biological service center. This can be either on the sink counter 44 or on the pull-out panel 33. The drawer 28 can be pulled out to give access to a trash compartment for towels and the like.

We claim:

1. Biological study equipment comprising a generally rectangular cabinet having a front opening in the upper portion thereof, a sink in said cabinet defining at least a portion of the bottom of said opening, exhaust port means defining at least a portion of the top of said opening, downwardly-directed germicidal lamp means adjacent said exhaust port means, and storage means below said sink.

2. The structure of claim 1 in which a glove-equipped

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transparent panel is removably positioned in said front opening to close the same.

3. The structure of claim 2 in which said exhaust port means is adapted to develop a face velocity of at least the order of about 40 feet per minute.

4. The structure of claim 1 in which said sink is constructed and arranged to project outwardly forwardly of said cabinet at height adequate to permit a student to sit on a stool below said sink.

5. The structure of claim 1 in which said sink is equipped with an integral counter portion having a double pitch to facilitate drainage of liquid thereon toward a drain.

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6. The structure of claim 1 in which said cabinet is equipped with a sliding leaf panel immediately below said sink for use in microtone work and the like.

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