

Feb. 13, 1962

W. KOWALCZYK

3,021,185

W. ROWLETT
3,021,1
CONTROLLABLY EXTENDABLE AND RETRACTABLE STORING AND CARRYING
APPARATUS ADAPTED TO BE MOUNTED UNDERNEATH A HORIZONTAL
SURFACE IN AN OTHERWISE UNUSED, UNOBTUSIVE LOCATION
v. 12 1959

Filed Nov. 12, 1959

3 Sheets-Sheet 1

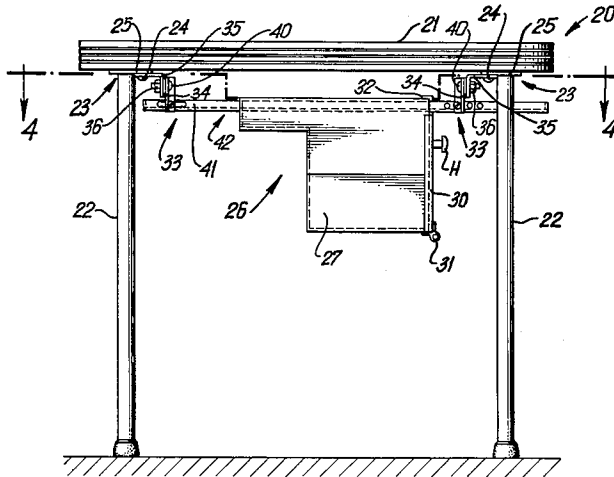


FIG. 1

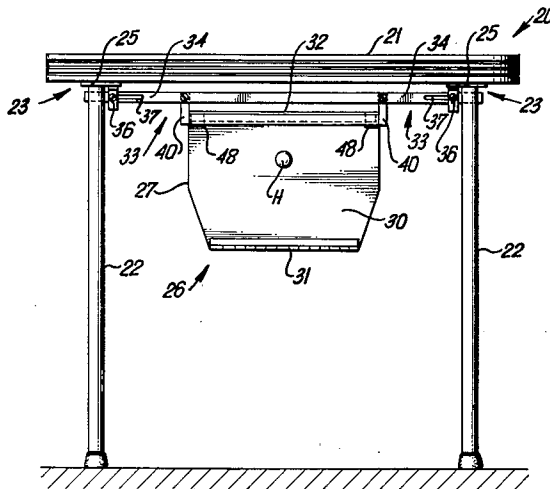


FIG. 2

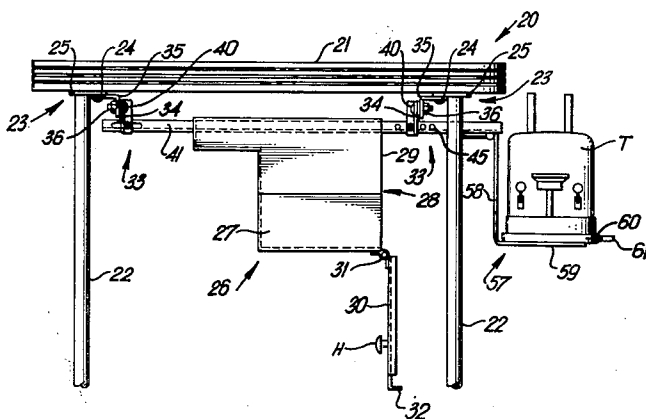


FIG. 3

INVENTOR.
WALTER KOWALCZYK

Feb. 13, 1962

W. KOWALCZYK

3,021,185

CONTROLLABLY EXTENDABLE AND RETRACTABLE STORING AND CARRYING
APPARATUS ADAPTED TO BE MOUNTED UNDERNEATH A HORIZONTAL
SURFACE IN AN OTHERWISE UNUSED, UNOBTUSIVE LOCATION

Filed Nov. 12, 1959

3 Sheets-Sheet 2

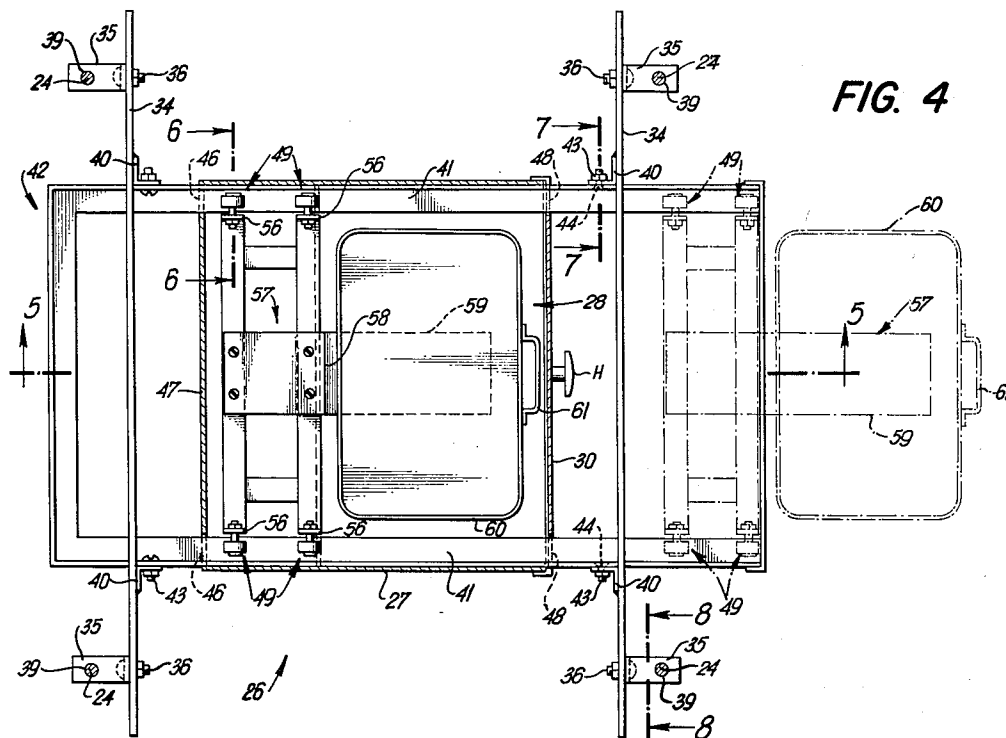


FIG. 4

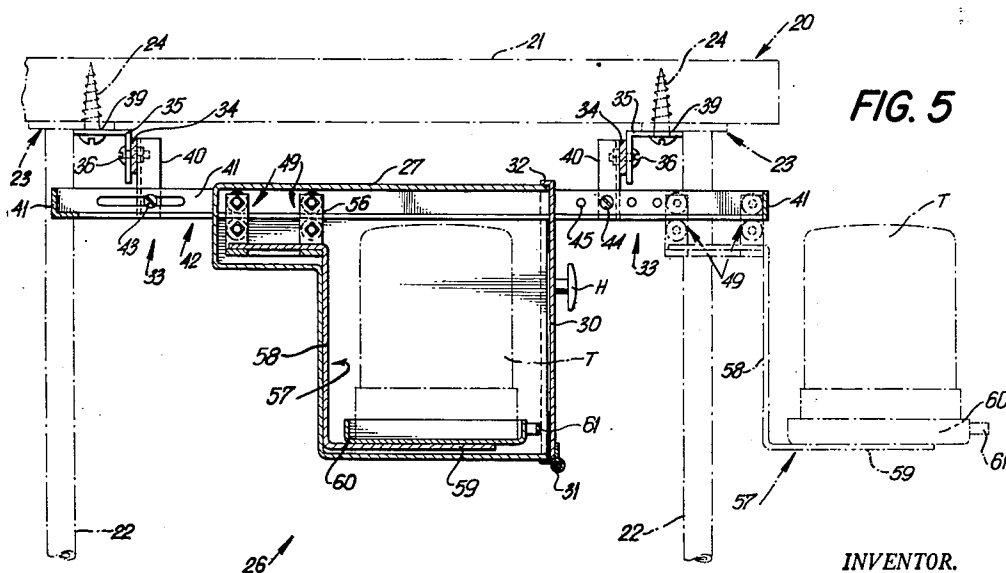


FIG. 5

INVENTOR.
WALTER KOWALCZYK

Feb. 13, 1962

W. KOWALCZYK

3,021,185

CONTROLLABLY EXTENDABLE AND RETRACTABLE STORING AND CARRYING
APPARATUS ADAPTED TO BE MOUNTED UNDERNEATH A HORIZONTAL
SURFACE IN AN OTHERWISE UNUSED, UNOBTRUSIVE LOCATION

Filed Nov. 12, 1959

3 Sheets-Sheet 3

FIG. 6

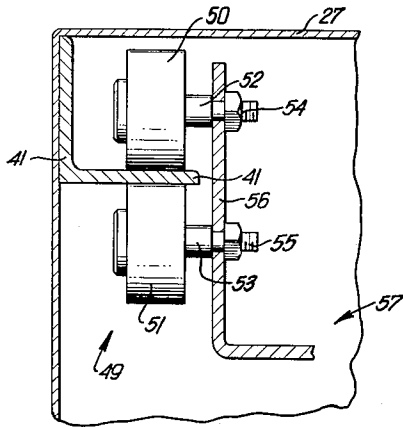


FIG. 7

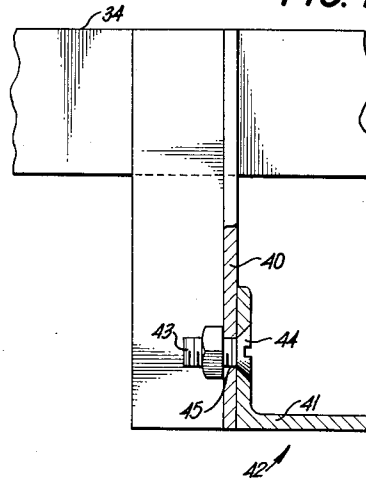


FIG. 9

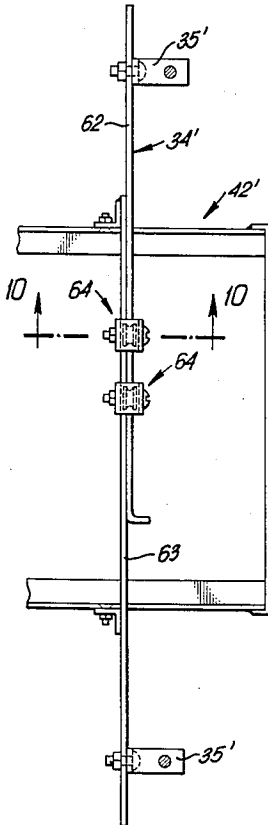


FIG. 8

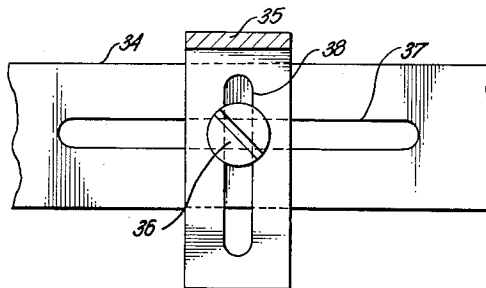
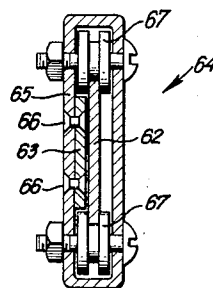


FIG. 10



INVENTOR.
WALTER KOWALCZYK

1

3,021,185

CONTROLLABLY EXTENDABLE AND RETRACTABLE STORING AND CARRYING APPARATUS ADAPTED TO BE MOUNTED UNDERNEATH A HORIZONTAL SURFACE IN AN OTHERWISE UNUSED, UNOBTUSIVE LOCATION

Walter Kowalczyk, Wyandotte, Mich., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., North Hollywood, Calif., a corporation of California
Filed Nov. 12, 1959, Ser. No. 852,428
5 Claims. (Cl. 312-29)

The present invention consists of controllably extendable and retractable storing and carrying apparatus adapted to be mounted underneath a horizontal surface in an otherwise unused, unobtrusive location and, in one specific preferred form, may be said to comprise horizontally controllably extendable and retractable storing and carrying apparatus adapted to be mounted underneath a substantially horizontal table top of a table of a type including the table top and a plurality of downwardly directed supporting legs fastened thereto by suitable fastening means, with the storing and carrying apparatus being mounted immediately underneath the table top and between the legs of the table in an otherwise unused and unobtrusive location, and with the storing and carrying apparatus being adapted to carry a utilitarian device of a type adapted to be intermittently used, such as an electric toaster, or the like, whereby it can be stored in a retracted position underneath the table during non-use periods and can be controllably extended beyond the edge of the table into a conveniently accessible position when the toaster, or the like, is to be used.

It is an object of the present invention to provide controllably extendable and retractable storing and carrying apparatus of the type generally described above, including hollow housing means mounted underneath the table top or other similar substantially horizontal supporting surface, and including longitudinal rail means extending from within the interior of the housing means through an access opening to a position exterior of the housing means, with said longitudinal rail means rollably supporting carriage means for controllable movement from a completely retracted position within said housing means into a completely extended position exterior of said housing means and normally extending beyond the edge of the table or other horizontal supporting surface carrying the apparatus, with said carriage means being adapted to support a utilitarian device such as an electric toaster, or the like, for effective extension into a use position with the electric toaster positioned completely outside of the housing means and normally extending beyond the edge of the table or other horizontal supporting surface carrying the apparatus, and for effective retraction into a completely retracted storage or non-use position with the toaster inside of the housing means in an otherwise unused, unobtrusive location underneath the table top or other substantially horizontal supporting surface carrying the apparatus.

It is a further object to provide controllably extendable and retractable storing and carrying apparatus of the character set forth above, wherein the front access opening into the housing means is provided with manually controllably openable and closable closure door means adapted to normally close the housing means.

It is a further object to provide controllably extendable and retractable storing and carrying apparatus of the character set forth above, including mounting means of a controllably adjustable character suitable for mounting the apparatus underneath the table top surface of various size tables and wherein said mounting means is adapted to engage and be effectively mounted with respect to the table by table leg fastening means which al-

2

ready effectively fastens the plurality of table legs to the table top, thus eliminating the necessity of using auxiliary mounting or fastening means for fastening the apparatus of the present invention underneath the table.

It is a further object to provide apparatus of the character set forth above, wherein the mounting means is controllably longitudinally adjustable for mounting cooperation with the undersurface of a size-adjustable table top of a type consisting of two or more portions slidably mounted with respect to each other for extension into spaced relationship and for the reception therebetween of area-increasing leaf means.

It is a further object to provide apparatus of the character set forth in any of the preceding objects, wherein the longitudinal rail means slidably mounting the carriage means consists of a transversely spaced pair of parallel longitudinal rails, and whereby engagement of the carriage means with respect thereto is effected by rotary rail-engaging roller means engaging top and bottom surfaces of each of the rails whereby to positively fasten the carriage means thereunder in depending relationship for longitudinal movement between the extended and retracted positions.

It is a further object to provide controllably extendable and retractable storing and carrying apparatus of the character set forth in any of the preceding objects, which is of extremely simple, cheap, foolproof construction such as to facilitate widespread use thereof.

Further objects will be apparent to persons skilled in the art after a careful study hereof.

For the purpose of clarifying the nature of the present invention, one exemplary embodiment and a portion of a slightly modified form of mounting means therefor, are illustrated in the hereinbelow-described figures of the accompanying three sheets of drawings, and are described in detail hereinafter.

FIG. 1 is a reduced-size side elevational view of one exemplary form of the present invention shown mounted and in retracted non-use position under one typical form of table consisting of a table top and four downwardly directed supporting legs fastened thereto adjacent the four corners of the table top by suitable table leg fastening means, which are also employed for fastening the mounting means of the storing and carrying apparatus of the present invention underneath the table top.

FIG. 2 is a front elevational view of the table and controllably extendable and retractable storing and carrying apparatus shown in side elevation in FIG. 1.

FIG. 3 is a fragmentary side elevational view generally similar to FIG. 1, but shows the housing means open and the carriage means and the electric toaster supported thereby in the extended use position.

FIG. 4 is a larger-scale view, partly in elevation and partly in section, taken in the direction of the arrows 4-4 of FIG. 1 and shows the extended position of the carriage means in broken lines.

FIG. 5 is a vertical sectional view taken in the direction of the arrows 5-5 of FIG. 4 and also shows the extended position of the carriage means in broken lines.

FIG. 6 is an enlarged fragmentary detail sectional view taken in the direction of the arrows 6-6 of FIG. 4 showing one of the rails of the longitudinal rail means and the rail-engaging roller means engaging top and bottom surfaces thereof.

FIG. 7 is an enlarged fragmentary detail sectional view taken in the direction of the arrows 7-7 of FIG. 4.

FIG. 8 is an enlarged fragmentary detail view, partly in section and partly in elevation, taken in the direction of the arrows 8-8 of FIG. 4 showing one portion of the adjustable mounting means for mounting the device under the table top.

FIG. 9 is a fragmentary view generally similar to the

right end portion of FIG. 4 but illustrating one end portion of a slightly modified form of mounting means which is controllably longitudinally adjustable for mounting cooperation with the undersurface of an extendable table top of a type including at least two portions slidably mounted with respect to each other for extension into spaced relationship and for the reception therebetween of area-increasing leaf means.

FIG. 10 is an enlarged sectional detailed view of a portion of the adjustable mounting member taken in the direction of the arrows 10-10 of FIG. 9.

Generally speaking, the present invention may be said to include hollow housing means defining an interior carrying and storing chamber therein and having a front access opening thereinto, with the housing means being effectively mounted by mounting means underneath a substantially horizontal table top, or the like, and with the housing means also being provided with longitudinal rail means extending from within the interior chamber within the housing means outwardly through the access opening into an extended horizontally displaced position completely outside of the housing means and normally positioned beyond the edge of the table top, or the like, and with said longitudinal rail means slidably carrying extendable and retractable carriage means, which is adapted to support a utilitarian device, such as an electric toaster, or the like, for controllable extension from the normal retracted position within the housing means into the extreme extended use position completely outside of the housing means and normally beyond the edge of the table top.

In the specific example illustrated in FIGS. 1-8, one typical exemplary table is indicated generally at 20 and includes a table top 21 and four downwardly directed supporting legs 22, each fastened to the undersurface of the table top 21 by a corresponding one of four table leg fastening means, such as indicated generally at 23, and each of which includes an upwardly directed fastening screw, or the like, such as is indicated at 24, fastening a plate member 25 which is affixed to the upper end of the corresponding table leg 22. The manner in which each of the table leg fastening means 23 is also adapted to mount the controllably extendable and retractable storing and carrying apparatus of the present invention, which is indicated generally at 26, will be described in greater detail hereinafter.

In the specific example illustrated in FIGS. 1-8, the controllably extendable and retractable storing and carrying apparatus, indicated generally at 26, includes the hollow housing means 27, which is defined by spaced walls enclosing the hollow interior carrying and storing chamber, indicated generally at 28 (best shown in FIG. 3), and which defines a front access opening 29 at the front end thereof which is provided with a manually controllably openable and closable closure door 30 hinged as indicated at 31 and provided with a frictional snap fastener 32 for effectively retaining the door 30 in enclosed position as shown in FIGS. 1 and 2.

In the specific example illustrated in FIGS. 1-8, the mounting means referred to broadly above is indicated generally at 33 and includes two longitudinal members 34 which are spaced apart in parallel relationship to each other and which are provided with suitable angle brackets 35 adjustably connected with respect thereto by threaded fastener means 36 lockingly cooperable with horizontally directed slot means 37 in the longitudinal members 34 and with vertically directed slot means in the vertically directed portions of the angle brackets 35 whereby adjustment of each of the angle brackets 35 with respect to the longitudinal mounting members 34 may be effected longitudinally and also vertically. It should be noted that each of the angle brackets 35 is provided with a hole 39 which is adapted to be mounted on the fastening screws 24 of the pre-existing table leg fastening means, indicated generally at 23, whereby to effectively mount

the spaced parallel longitudinal mounting members 24 underneath the table top 21 even though the table top 21 may be of various sizes.

The mounting means indicated generally at 33 also includes four attachment members 40 fixedly fastened to the longitudinal mounting members 34 and adjustably fastened to side portions of angle iron members 41 of a substantially rectangular box-like frame indicated generally at 42; the attachment of each of the members 40 to the sides of the angle iron members being adjustable along the length of the members 41 by means of threaded fastening means 43, each having a countersunk head 44 engageable with any of a plurality of holes 45, thus making it possible to vary the spacing between the parallel longitudinal mounting members 34 for appropriate mounting cooperation underneath a table top 21 of a corresponding transverse dimension.

It should be noted that the bottom portion of each of the side angle iron members 41 referred to above effectively comprises one longitudinal rail of the pair of longitudinal rails 41, which together comprise the hereinbefore generally-referred-to longitudinal rail means carried by the housing 27 and actually extending through holes 46 in the upper outer corners of the rear wall 47 of the housing 27 and similarly extending through holes 48 in the upper outer corners of the front closure door 30, with the rotary rail-engaging roller means, indicated generally at 49, engaging top and bottom surfaces of the transverse portions of each of the rails 41; each of said roller means 49 including an upper roller 50 and a lower roller 51 rotatively carried by transverse shaft members 52 and 53, respectively, which are fastened by suitable threaded fastener means 54 and 55, respectively, to upstanding hanger edges 56 connected to the depending carriage means, indicated generally at 57, which includes a downwardly directed portion 58 and an underlying platform portion 59 having an upwardly directed cup portion 60 adapted to carry and support a utilitarian object, such as an electric toaster, or the like, indicated in broken lines at T for slidable extension and retraction with respect to the housing 27 when the front closure door 30 is opened through the use of the handle H into the open position shown in FIG. 3, after which the handle 61 associated with the cup-like member 60 of the platform 59 may be manually grasped and pulled outwardly, which will cause the rollers 50 and 51 of the rail-engaging means 49 to rollably move the entire carriage means 57 from the normal retracted non-use position shown in FIGS. 1, 2, 4, and 5 in solid lines into the extended use position shown in broken lines in FIGS. 4 and 5 and shown in solid lines in FIG. 3, which normally is beyond the corresponding edge of the table top 21 whereby to facilitate easy use of the toaster T by a person seated at the table. It will be readily understood that after the toaster has been used, the carriage means 57 and the toaster T may be slidably moved backward into the retracted position completely within the housing 27, which may then be closed so that the entire device assumes the closed position shown in FIGS. 1, 2, 4, and 5 in solid lines.

FIGS. 9 and 10 illustrate a modified form of one of the longitudinal mounting members generally similar to the corresponding mounting member 34 shown in the first form of the invention at the right side of FIG. 4. This modified mounting member is indicated generally by the reference numeral 34' and consists of two portions including a first portion 62 and a second portion 63, with the second portion 63 being provided with two slide mounting means, indicated generally at 64, and each including a back plate 65 fastened by countersunk rivets 66 to the member 63, with upper and lower edges of the back plate 65 being provided with top and bottom walls and a front wall effectively defining an enclosure rotatably carrying slotted rollers 67 at the top and bottom thereof slidably engaging therebetween the longitudinal member 62 whereby to provide for controllable extension

and retraction or lengthening and shortening of the complete longitudinal mounting member 34' whereby to vary the longitudinal spacing between the mounting brackets 35' in a manner such as to be suitable for fastening cooperation with the table leg fastening means carried by a table generally similar to the table 20 indicated in FIGS. 1, 2, and 3 but of a controllably longitudinally extendable type (not shown) consisting of at least two table top portions slidably mounted with respect to each other for extension into spaced relationship and for the reception therebetween of area-increasing leaf means.

It should be understood that the figures and the specific description thereof set forth in this application are for the purpose of illustrating the present invention and are not to be construed as limiting the present invention to the precise and detailed specific structure shown in the figures and specifically described hereinbefore. Rather, the real invention is intended to include substantially equivalent constructions embodying the basic teachings and inventive concept of the present invention.

I claim:

1. Horizontal controllably extendable and retractable storing and carrying apparatus adapted to be mounted underneath a substantially horizontal table top or the like in an otherwise unused, unobstrusive location and adapted to carry a utilitarian device of a type adapted to be intermittently and relatively infrequently used, comprising: hollow housing means defining an interior carrying and storing chamber therein and having a front access opening therinto at one end thereof provided with manually controllably openable and closable closure means adapted to normally close said housing and interior chamber; mounting means for mounting said housing means immediately under a substantially horizontal table top of a table of a type having downwardly directed supporting legs fastened thereto by suitable fastening means, with said mounting means being adapted to engage the table leg fastening means whereby to be fastened to the underside of the table thereby; said housing being provided with longitudinal rail means extending from within the interior chamber within said housing outwardly through said access opening therinto into an extended displaced position completely outside of the housing; and carriage means provided with rotary rail-engaging means rollably engaging said longitudinal rail means for extension outwardly from the interior chamber within said housing into an extended displaced use position and for retraction entirely within said interior chamber into a retracted non-use storage position.

2. Apparatus of the character defined in claim 1, wherein said rotary rail-engaging means comprises vertically spaced roller means engaging top and bottom surfaces of said longitudinal rail means and positively fastening the carriage means thereunder in depending relationship for longitudinal movement between the extended and retracted positions.

3. Horizontal controllably extendable and retractable storing and carrying apparatus adapted to be mounted underneath a substantially horizontal table top or the

like in an otherwise unused, unobstrusive location and adapted to carry a utilitarian device of a type adapted to be intermittently and relatively infrequently used, comprising: hollow housing means defining an interior carrying and storing chamber therein and having a front access opening therinto at one end thereof provided with manually controllably openable and closable closure means adapted to normally close said housing and interior chamber; controllably adjustable mounting means for mounting said housing means immediately under a substantially horizontal table top of a table of a type having downwardly directed supporting legs fastened thereto by suitable fastening means, with said mounting means being adapted to engage the table leg fastening means whereby to be fastened to the underside of the table thereby, said mounting means consisting of two horizontally spaced substantially parallel longitudinal members provided adjacent opposite ends thereof with controllably positional adjustable and lockable fastening angle brackets cooperable with fastening means fastening supporting table legs underneath the table top; said housing being provided with substantially horizontally directed longitudinal rail means consisting of a transversely spaced pair of parallel longitudinal rails extending from within the interior chamber within said housing outwardly through said access opening therinto into an extended horizontally displaced position completely outside of the housing; and carriage means provided with rotary rail-engaging roller means rollably engaging said longitudinal rail means with said carriage means positioned thereunder for extension outwardly from the hollow interior chamber within said housing into an extended horizontally displaced use position and for retraction entirely within said interior chamber into a retracted non-use storage position.

4. Apparatus of the character defined in claim 3, wherein said rotary rail engaging means consists of vertically spaced roller means engaging top and bottom surfaces of each of the rails of said longitudinal rail means and positively fastening the carriage means thereunder in depending relationship for longitudinal movement between the extended and retracted positions.

5. Apparatus of the character defined in claim 3, wherein said mounting means is controllably longitudinally adjustable for fastening cooperation with the under-surface of a table top of a type consisting of two portions slidably mounted with respect to each other for extension into spaced relationship and for the reception therebetween of area-increasing leaf means.

References Cited in the file of this patent

UNITED STATES PATENTS

1,613,696	Farris	Jan. 11, 1927
2,173,302	Kock	Sept. 19, 1939
2,311,861	Page	Feb. 23, 1943
2,471,245	Schoenberg	May 24, 1949
2,678,862	Paliuca	May 18, 1954
2,750,242	Viehmann	June 12, 1956
2,885,694	Ulm	May 12, 1959