F. J. McMENAMIN.

BIN.

APPLICATION FILED JAN. 17, 1910.

973,368.

Patented Oct. 18, 1910.

2 SHEETS—SHEET 1.

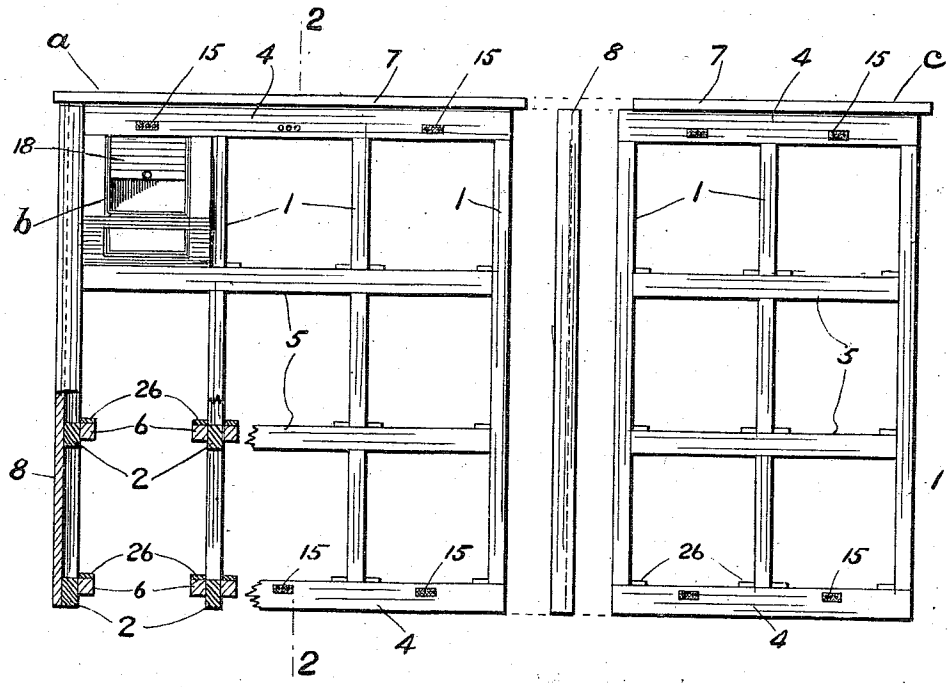


FIG. 1.

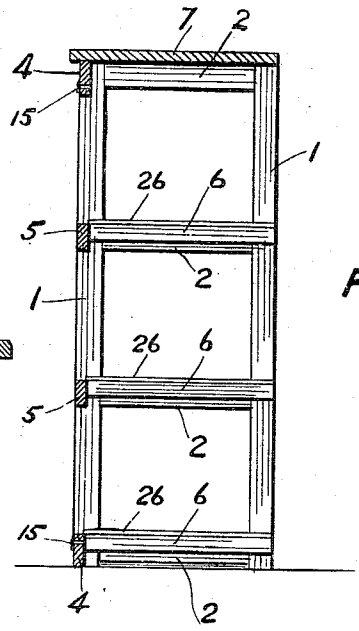


FIG. 2.

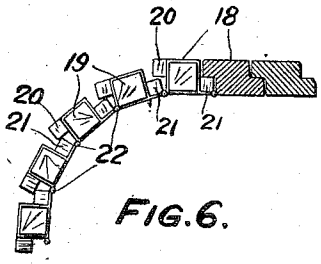


FIG. 6.

WITNESSES:

Robt. R. Ketchel

E. E. Wall

INVENTOR

Francis J. McMenamin

BY Harding & Harding

ATTORNEYS.

F. J. McMENAMIN.

BIN.

APPLICATION FILED JAN. 17, 1910.

973,368.

Patented Oct. 18, 1910.

2 SHEETS—SHEET 2.

FIG. 3.

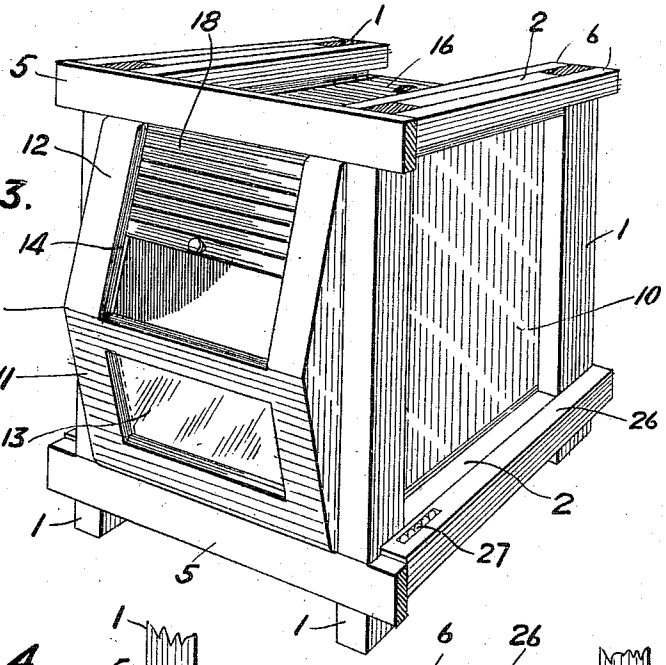


FIG. 4.

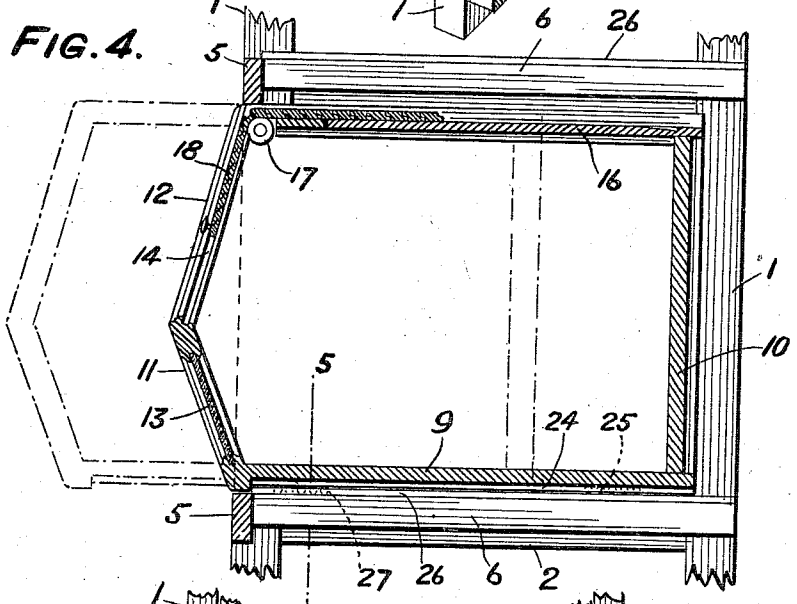
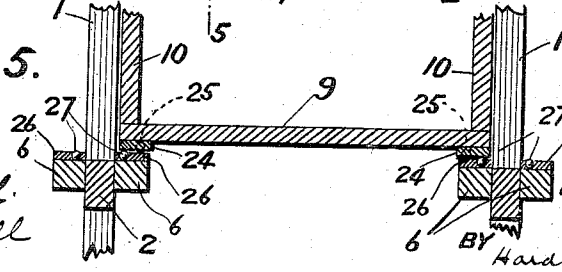


FIG. 5.



WITNESSES:

Robt. R. Kitchel.

E. E. Wall

INVENTOR

Francis J. McMenamin

BY Harding & Harding

ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANCIS J. McMENAMIN, OF PHILADELPHIA, PENNSYLVANIA.

BIN.

973,368. Specification of Letters Patent. Patented Oct. 18, 1910.

Application filed January 17, 1910. Serial No. 538,381.

To all whom it may concern:

Be it known that I, FRANCIS J. McMENAMIN, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Bins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The objects of my invention are, first, to provide an open work multiple bin casing and bins therefor so constructed and arranged as to exclude dust from the bins and bin receptacles while permitting a free circulation of air above, below, in front of, behind, and at the sides of each bin.

Another object of the invention is to construct the multiple casing in sections in such manner that while it may be extended laterally, the openwork connection between adjacent units will be essentially the same as the open work connection between contiguous tiers of the same unit.

Another object of the invention is to save both space and time in the normal operation of the bins.

Another object of the invention is to provide for readily enlarging the normal opening to the interior of bin in case it is desirable to have more free access thereto than is necessary in normal use.

Another object of the invention is to so construct the bins and their receptacles that they may be freely slid out and in without sticking or jamming and may be readily replaced or interchanged.

In the drawings, which represent a preferred embodiment of my invention: Figure 1 is a front view of two units of the multiple bin casing. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of one of the bins and the part of the casing forming the receptacle therefor. Fig. 4 is a vertical section through same. Fig. 5 is a vertical section on the line 5—5 of Fig. 4. Fig. 6 is a detail view, of a part of the sliding curtain.

The multiple sectional casing *a* comprises upright strips 1 and connecting strips 2 composing the sides of the casing, top and bottom horizontal strips 4 and intermediate horizontal strips 5 composing the front of the casing, and bin supporting strips 6 secured to the sides of the casing and whose upper surfaces are flush with the upper surfaces of the corresponding front strips. There is thus formed a single unitary structure comprising a plurality of bin casings or receptacles.

The bins *b*, hereinafter described, are preferably of less depth than the casing so as to leave open spaces at the rear of the casing when the bins are pushed back into their several receptacles. They are also of less height than the individual receptacles, so as to leave an open space above them.

The top and bottom front strips 4 are provided with ventilating orifices preferably covered with wire netting 15. The rear of the multiple casing may be open and back up against the wall of the store room, or it may be closed by means of a plain solid back if desired. The multiple casing is covered by a plain top 7.

By means of the foregoing construction, the interior of the multiple casing is openwork, permitting air to circulate freely above, below and behind each of the bins, while the wire netting excludes the entry of dirt and dust. Thereby the structure possesses important sanitary qualities.

A removable end wall 8 is secured, preferably by screws, to the strips 1 and 2 composing each of the outer sides of the exterior vertical tier of bin receptacles. When it is desired to enlarge the capacity of the structure, one of these end walls 8 is removed, and an additional unitary multiple casing *c*, which may consist of one or more tiers of receptacles similar to those of which the casing *a* is composed, is abutted against the open side of the casing *a*, and the end wall 8 applied to close the side of the casing *c*.

Each sliding bin *b*, of which there are as many as there are receptacles in the multiple casing, is composed of a floor 9, side walls 10, 10, and lower and upper front sashes 11 and 12. The front sash 11, which preferably is inclined somewhat outwardly from the floor up, is constructed to receive a pane of glass 13, through which the material in the bin is always open to observation. The open-top upper sash 12, which preferably

is inclined somewhat outwardly from the top down, is provided with upright guides 14, formed in its opposite side members.

Beneath the upper edges of the sides 10, the same are provided, along their inner walls, with horizontal grooves or guides, within which slides the top 16 of the bin. Connecting the sides 10, immediately in front of the top 16, is a roller 17.

18 is a flexible sliding curtain, which is adapted to rest upon the top 16 of the bin and to be pulled forward and downward over the roller 17 and slide in the guides 14 of the upper sash 12. The curtain 18 is preferably composed of slats. Each slat has contracted ends 19, and between the contracted ends, the front side of each slat is cut away at the top and the rear side of each slat is cut away at the bottom, the upper rear projection 20 of each slat overhanging the lower front projection 21 of the slat immediately behind it. Each contracted end has secured to it a hinge member 22, which is connected with the hinge members of the corresponding ends of the two contiguous slats. This construction permits the curtain to turn the sharp angle between the top and front of the bin as freely as if it were composed wholly of flexible material, and at the same time the construction is one of substantial durability and effectually seals the opening through the sash 12 when the curtain is rolled down into normal position.

Secured beneath the floor of the bin, adjacent to the side walls thereof, are metal strips 24. Near the outer edge of each strip the same is cut away to receive a row of balls 25, which project slightly below the lower face of the strip. Secured to the upper faces of the strips 6 of the casing are metal strips 26, each of which is cut away, near its inner edge, to receive a row of balls 27. By means of this construction, the bin is freely slidable within its receptacle, however substantial may be the weight of material contained in the bin.

In the normal use of the bin, the parts are in the position shown in Fig. 2, except that the curtain 17 is pulled down so as to wholly close the opening in the sash 12. When it is desired to gain access to the bin, the curtain is rolled upward and backward. It is not necessary to pull the bin forward to remove the contents, thus saving considerable space which may be utilized by providing deeper bins. It may be desirable, however, especially in filling the bins, to gain more free access thereto; and this is effected by pulling out the bins to, or beyond, the dotted line position, shown in Fig. 4, and sliding back the curtain beyond its normal open position and then sliding back the top 16.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. The combination, with an open-front casing, of a bin slidable forwardly and rearwardly in the casing and provided in its front with an open-top upper sash and a lower sash, a glass inserted on the lower sash, and a flexible curtain slidable in the upper sash and slidable over the top of the bin.

2. The combination with an open front casing, of a bin slidable forwardly and rearwardly in the casing and provided at its front with an opening and guideways along the sides of the opening, a removable top slidably engaging the upper ends of the sides of the bin, and a flexible curtain slidable in said guideways to close said opening and slidable rearwardly along the top of the bin.

3. The combination with an open-front casing, of a bin slidable forwardly and rearwardly in the casing and having an opening in the upper part of its front and closed in the lower part of its front, upright guides at the sides of said opening, a roller at the top of said guides and in front of the top of the bin, and a flexible curtain slidable over said roller, within said guides and along the top of the bin and of greater length than the height of said opening.

4. The combination with an open front casing, of a bin having a floor, side walls and rear wall, rearwardly extending guides near the upper edges of the side walls, a bin top slidable in said guides, front bin members comprising a lower sash and an open-top upper sash, a glass within the lower sash, upright guides in the side members of the upper sash, a curtain composed of a series of connected slats the ends of which are slidable in said guides, and a roller extending crosswise of the bin at the upper ends of the last-named guides and at the forward end of said bin top, said curtain being adapted to slide over said roller and along the bin top.

5. The combination with a multiple bin casing comprising an open frame-work dividing the casing into a plurality of bin receptacles, of bins comprising side walls, a rear wall, a bottom and a top, said bins adapted to enter said receptacles, each bin having an open front portion and provided with guideways, and a curtain slidable in said guideways to close the front of the bin and slidable along the top of the bin.

6. The combination with an open-front casing, of an open-front bin slidable forwardly and rearwardly in said casing, a curtain, composed of a series of slats, hinged together, and slidable upwardly and downwardly in the open front of the bin and forwardly and rearwardly along the top of the bin, each of said slats being cut away be-

tween its ends along the upper part of one side and the lower part of its other side, to form continuous projections which respectively overhang the adjacent projection of one adjacent slat and are overhung by the adjacent projection of the other adjacent slat, each of said slats being cut away at its ends on opposite sides to an extent substantially corresponding with the dimensions of the projections and connected hinge members secured to the contracted ends.

In testimony of which invention, I have hereunto set my hand, at Philadelphia, on this 31st day of December, 1909.

FRANCIS J. McMENAMIN.

Witnesses:

E. E. WALL,

M. M. HAMILTON.