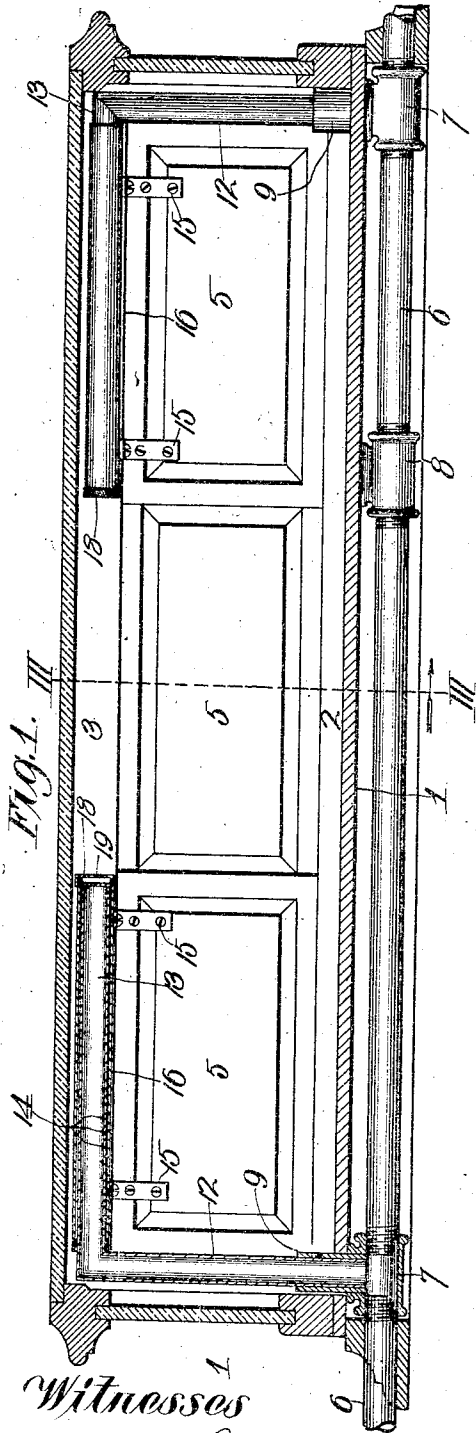


907,609.

Patented Dec. 22, 1908.



Witnesses
 Frank R. Gore
 H. C. Rodgers

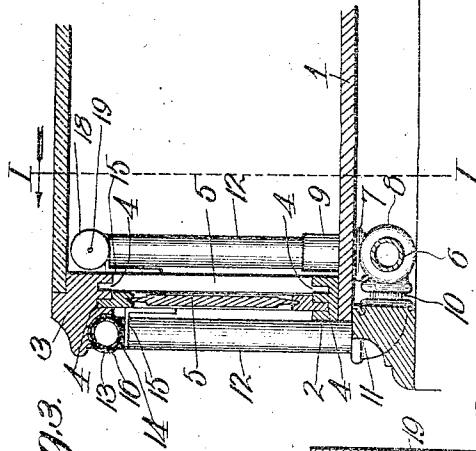


Fig. 3.

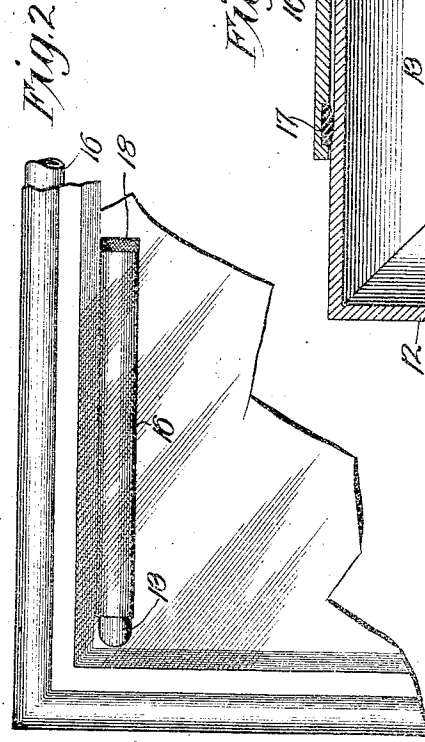


Fig. 2.

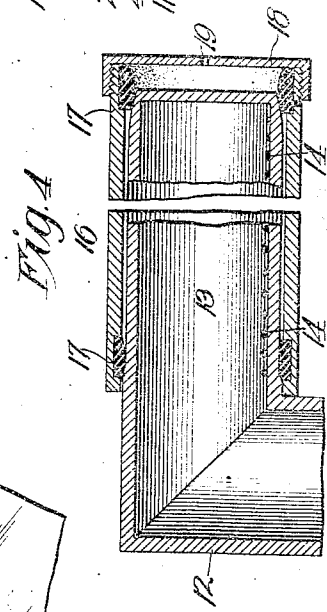


Fig. 4.

Inventor
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 By George H. Thompson atty.

UNITED STATES PATENT OFFICE.

WALLACE R. KIRK, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO JAMES C. SANDERS, OF KANSAS CITY, MISSOURI.

FLY AND DUST PROOF SHOW-CASE.

No. 907,609.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed March 31, 1908. Serial No. 424,347.

To all whom it may concern:

Be it known that I, WALLACE R. KIRK, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Fly and Dust Proof Show-Cases, of which the following is a specification.

This invention relates to fly and dust proof show cases, and my object is to produce means for establishing a blast of air and automatically substituting the same for a door of the case when said door is partly or wholly opened and thus prevent flies or dust or other foreign matter entering the case and contaminating or soiling the contents thereof.

A further object is to produce an air blast attachment for show cases which may form an integral part of a show case structure or which may be applied as an attachment to any of the approved types of show cases now in use.

With these general objects in view and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which—

Figure 1, is a vertical longitudinal section of a show case embodying my invention, the section being taken on the line I—I of fig. 3. Fig. 2, is a top plan view of a portion of said show case. Fig. 3, is a section taken on the line III—III of fig. 1. Fig. 4, is an enlarged vertical section of one of the air conduits of the case and the sheath thereof carried by the adjacent door.

In the said drawings, 1 indicates a show case of the type shown or of any other suitable or preferred type. 2 and 3 are the lower and upper bars of the rear side or wall of the case frame and 4 are longitudinal grooves in said bars for the sliding doors 5, the case shown disclosing two end doors in the same vertical plane and a middle door in a vertical plane rearward of the end doors. A supply pipe 6 leading from a blower or equivalent device, not shown, is arranged by preference, below and near the rear wall of the case and where the latter is provided with three doors arranged as explained, is provided with two T-couplings 7 arranged vertically and a T-coupling 8 arranged hori-

zontally, the first-named T-couplings being preferably equipped with short tubes 9 projecting upward into the case at its rear corners. The coupling 8 is provided with a rearwardly projecting pipe 10, communicating with a vertically arranged elbow 11 having its upper end disposed rearward of the middle door.

12 indicates stand pipes projecting upward from tubes 9 and the elbow 11 and provided at their upper ends contiguous to the upper edges of the doors with horizontally arranged tubular extensions 13 provided in their lower sides with longitudinal series of orifices 14.

15 are angle brackets secured to the inner sides by preference, of the end sliding doors, similar ones being secured to the middle sliding door, and rigidly secured to said brackets are tubular sheaths 16 fitting telescopically upon their respective pipes 13, and closing the orifices 14.

In the preferred construction, the terminals of the extensions 13 are closed as shown in fig. 4 most clearly, and the sheaths are equipped near each end with internal compressible rings of rubber or equivalent material 17, which establish an air-tight relation between the sheaths and the extensions inclosed thereby, each sheath being preferably provided with a cap 18 at its inner end. When the doors are closed as shown, the sheaths prevent the escape of air from extensions 13. When either of the doors is moved endwise to give access to the interior of the case, the sheath of such door is moved telescopically upon its extension and exposes some or all of the orifices 14 and as a result a blast of air escapes therefrom and forms a wall of air in place of the door. These walls of air from the extensions within the case are caused to extend downwardly and outwardly by disposing the orifices of the extensions slightly rearward of the longitudinal center of the latter, as will be readily understood, it being desirable of course that the air from the extensions within the case shall be caused to pass out of the door openings without contact with the articles within the case so as to avoid effecting the evaporation of the moisture which such articles may contain, reference being had particularly to bakery products and other products which deteriorate if subjected to air currents. The orifices of the extensions rear-

ward of the case are so disposed by preference, as to discharge the air downward past the door opening without entering the latter.

By the arrangement described of the discharge ends of the conduits, as portions 13 may be termed, a thin wall of air is established whenever the door is opened, the width of the blast corresponding approximately of course to the distance which the door is moved. This blast or current of air acts as a wall to prevent flies or dust entering the case, it being of course understood that it will not interfere with the placing of articles in or removing articles from the case, and that if an article is so light as to be affected by the air current the operator can hold it until it has passed beyond the plane of the blast or current.

To avoid any possibility of air collecting in either of the sheaths tending to resist the closing of its respective door or to open such door, each cap 18 is provided with a vent hole 19, through which air is free to pass in and out in the operation of the door, it being further noted in the preferred construction as shown, that by the use of the compressible rings 17, each sheath is centralized with respect to its respective extension 13 on which it operates telescopically, said rings as hereinbefore stated establishing air-tight connections and at the same time reducing the friction between the extensions and the sheaths far below that which would exist if the sheath fitted with an air tight relation for its full length on the extension.

From the above description it will be apparent that I have produced a fly and dust proof show case embodying the features of advantage enumerated as desirable and I wish it to be understood that I reserve the right to make such changes as properly fall within the spirit and scope of the appended claims.

Having thus described the invention what I claim as new and desire to secure by Letters-Patent is:—

1. A show case having a door opening, a door controlling said opening, an air conduit arranged contiguous to said opening

and adapted to direct a thin blast of air across said opening, and a sheath movable with the door and adapted to act as a closure for the discharge end of the conduit when the door is closed and to entirely or partly expose said discharge end when the door is wholly or partly opened.

2. A show case having a door opening, a door controlling said opening, an air conduit arranged contiguous to said opening and adapted to direct a thin blast of air across said opening, and a sheath movable with the door and fitting slidably upon the discharge end of the conduit and adapted to act as a closure for the latter when the door is closed and to entirely or partly expose said discharge end when the door is wholly or partly opened.

3. A show case having a door opening, a slide door controlling said opening, and an air conduit having a discharge portion arranged contiguous to one margin of the opening and adapted to discharge a thin sheet of air past the same, and a sheath fitting telescopically upon the discharge portion of the conduit and forming a closure therefor when the door is closed and secured to the latter to slide upon said discharge end as the door is opened or closed.

4. The combination with a show case having an opening, and a slide door controlling the same, an air conduit having an extension disposed substantially parallel with and near the upper margin of the opening provided with orifices adapted to discharge downwardly and rearwardly through said opening, and a sheath carried by the door and fitting telescopically upon the extension of the conduit and when the door is closed, covering all of the orifices and when the door is opened, exposing some or all of such orifices.

In testimony whereof I affix my signature, in the presence of two witnesses.

WALLACE R. KIRK.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.