

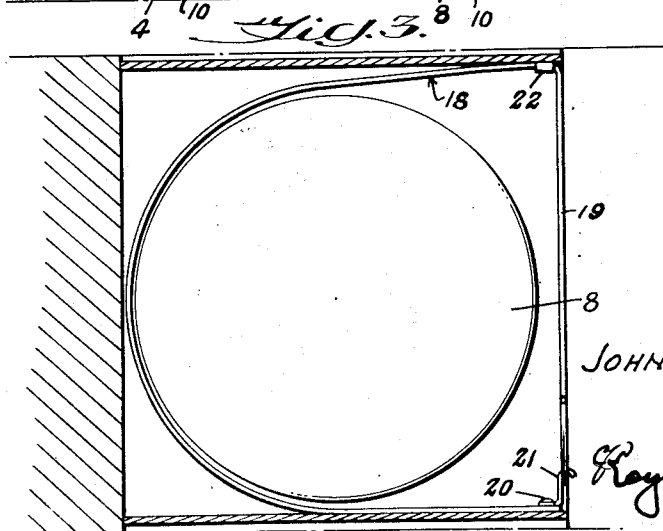
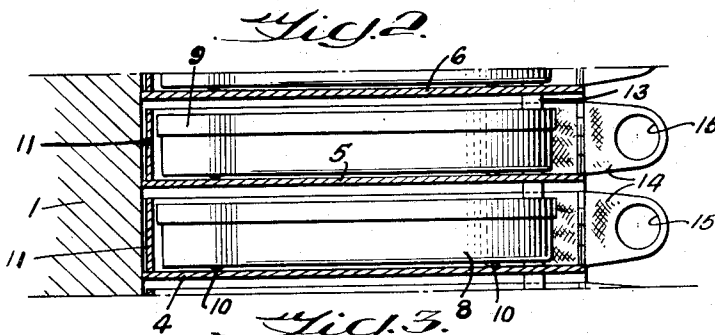
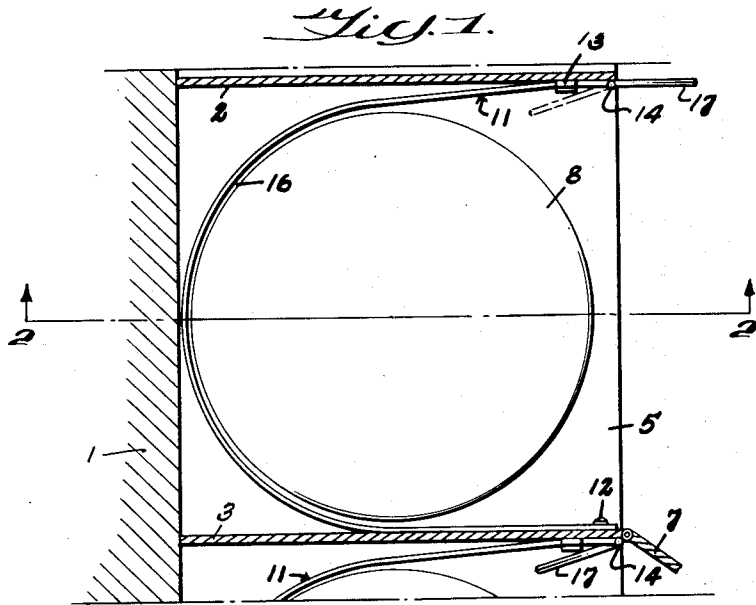
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CASE WITH HEATER-RESISTANT RETRACTOR AND CLOSURE BELT

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CASE WITH HEAT-RESISTANT RETRACTOR
AND CLOSURE BELT

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3 Claims. (Cl. 312-20)

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The invention described herein may be manufactured and used by or for the Government of the United States for governmental purposes without payment to me of any royalty thereon in accordance with the provisions of the act of April 30, 1928 (ch. 460, 45 Stat. L. 467).

This invention relates to means for withdrawing an object from a closely-restricted shelf space and for protecting the object in its shelved position, particularly against heat and fire. The invention is particularly concerned with the storage and manipulation of units such as moving picture film cases which contain highly inflammable material and which cases, as well as their supporting shelves, are usually of metal, and, therefore, heat-conductive.

An object of the invention is to provide a belt adapted to be attached to a side wall of a vertical shelf support, housing or cabinet, and to extend around the back of an object on a shelf and outwardly to the front of the shelf, on the opposite side, in position to be grasped and pulled to draw the object forward for removal.

Another object is to provide a belt of the character described which is of fire and heat resistant material whereby the belt forms a protective barrier between the object encircled and the adjacent walls and shelves.

A further object is the production of such belts adapted for use both with shelving or cabinets having doors, and those of the open type without doors.

Another object is the provision of a device of the nature indicated which is adapted for simple and efficient manufacture and ready attachment to existing types of shelves and housings.

These and other objects are attained by the means described herein and illustrated in the accompanying drawings, in which:

Fig. 1 is a horizontal cross section through portions of a shelving unit of the closable, door-provided type, showing the invention associated with a film case.

Fig. 2 is a cross sectional view on line 2-2 of Fig. 1.

Fig. 3 is a view similar to Fig. 1 showing a modified form of the invention associated with a shelving unit of the open type, without door.

As already indicated, this invention is particularly contemplated for use in the storage and protection of cases of moving picture film and is so illustrated herein, although the invention has numerous other obvious applications. Film is usually formed of material so inflammable that heat and fire spreads through a quantity of stored cases of film in a very short time and ade-

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quate protection against the hazard constitutes a major problem. Moreover, even where the storage room is supplied with one of the usual kinds of fire-protective sprinkler systems, operation of the latter might depend on the attainment of a certain high atmospheric temperature, or on actual flame-contact with the sprinkler-actuating means. And in the interval preceding such occurrence, the film might well reach the ignition point.

This invention provides a protective barrier adapted to substantially enclose the stored cases, and to extend substantially between the upper and lower shelf adjacent the individual film case.

The invention, moreover, provides an important advantage in the convenient and instantaneous withdrawal of film cases from their individual storage compartments. Due to the restricted character of the latter, it is often difficult to insert the hand or fingers for grasping the film case to remove it, without scratching the hand or breaking the finger nails. Such disadvantages are obviated by this invention.

In greater detail and with reference to Figs. 1 and 2, a shelving unit for film cases is shown as positioned adjacent a wall 1 against which the rear edges of the vertical side wall 2 and 3 are disposed. Shelves such as 4, 5, and 6 are supported by wall 2 and 3. This shelving unit is of the type provided with a hinged door, shown partially at 7.

Film cases 8 and 9 are shown as disposed on shelves 4 and 5, respectively. These are circular in form and may be provided with beads 10 on the bottom for spacing them slightly from the shelves.

The fire-resistant retractor belt 11 as seen in Figs. 1 and 2 is formed of suitable substantial though flexible material. One end is secured as at 12 at one side of the cabinet or storage space, to side wall 3. The intermediate portions of the belt extend rearwardly behind case 8 and the other end portions of the belt project forwardly at the opposite side of the cabinet passing through a suitable guide strap 13 which preferably permits the belt to rest edgewise against the top surface of the shelf. The free end 17 of the belt may be hinged as at 14 to the body thereof, and formed with a finger loop or ring 15. The hinges 14 likewise serve the function of precluding accidental rearward displacement from the guide 13 of the free end portions of the belt.

It will be noted in Fig. 2 that the width of the belt is somewhat greater than the height of the associated film case so that a protective barrier is thereby provided between the film case and the

cabinet walls. Normally, too, due to the substantial character of the belt, a space 16 results between the film case and the belt for further insulating the former.

When the film case is in position, the free end 17 of the belt is turned inwardly of the shelf front, as indicated at the lower right hand corner of Fig. 1, permitting closing of door 7. When it is desired to retract the case, said free end is turned out, as at the upper right hand corner of Fig. 1, and the belt pulled out, by use of the finger loop 15. The film case is thereby moved forwardly for easy withdrawal from its storage space.

The modification seen in Fig. 3 contemplates the use of a belt 18 similar to belt 11, but of such length as to be carried across the front of the shelf, as at 19, thus providing a forward protective barrier for the associated film cases where the latter are stored on the open or doorless type of shelving units. The means for securing the belt to the side wall of the unit, as indicated at 20, may also comprise a hook 21 to which the free loop-end of the belt may be attached for instantaneous release. With this type of belt, the guide strap 22 is preferably positioned at the extreme forward corner of the shelf space so that the portion 19 of the belt lies along the front edge of the shelf. In this way, assuming that a fire-protective sprinkler system is associated with the shelving, water is permitted readily to pass downwardly behind said front belt portion 19 into each individual storage space. The width of the belts, nevertheless, as related to the vertical distance between adjacent shelves, is sufficient to assure an effective front barrier against fire, particularly cross fire from shelving on one side of the usual narrow aisle, to that on the other side.

For withdrawal of the film case, the free end of the belt is slipped off hook 21 and pulled for retracting the film case encircled by the intermediate portions of the belt.

Modifications are readily suggested by the means herein disclosed but these are believed to be comprised within the spirit and scope of the invention.

What is claimed is:

1. The combination with a housing having a pair of shelves therein, of a belt secured by one end only at one side of the housing between the shelves and adapted to have its intermediate portions extending behind an object on the lower shelf with the other end and adjacent portions of the belt projecting forward at the opposite side of the housing and adapted to extend across the front of the shelves for enclosing said object, forward

pulling of the free end of the belt effecting outward movement of the object enclosed by the belt, a belt guide in the forward part of the housing, and means on the housing substantially opposite said guide for releasably securing the free end of the belt in said enclosing position.

2. The combination with a housing having a pair of shelves therein, of a belt secured by one end only at one side of the housing between the shelves and adapted to have its intermediate portions extending behind an object on the lower shelf with the other end and adjacent portions of the belt projecting forward at the opposite side of the housing and adapted to extend across the front of the shelves for enclosing said object, the belt being of a width to extend substantially across the space between the shelves, forward pulling of the free end of the belt effecting outward movement of the object enclosed by the belt, a belt guide in the forward part of the housing, and means on the housing substantially opposite said guide for releasably securing the free end of the belt in said enclosing position.

3. The combination with a fire-resistant housing having a pair of shelves therein, of a belt of fire-resistant material secured by one end only at one side of the housing between the shelves and adapted to have its intermediate portions extending behind an object on the lower shelf with the other end and adjacent portions of the belt projecting forward at the opposite side of the housing and adapted to extend across the front of the shelves for enclosing said object, forward pulling of the free end of the belt effecting outward movement of the object enclosed by the belt, a belt guide in the forward part of the housing, and means on the housing substantially opposite said guide for releasably securing the free end of the belt in said enclosing position, said belt being of a width to extend substantially across the space between the shelves for providing in secured position a closure at the front of the shelves.

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