July 5, 1927. 1,634,312

M. ZECCHINO

DOOR OR WINDOW SCREEN

Filed Aug. 11, 1926

Fig. 1

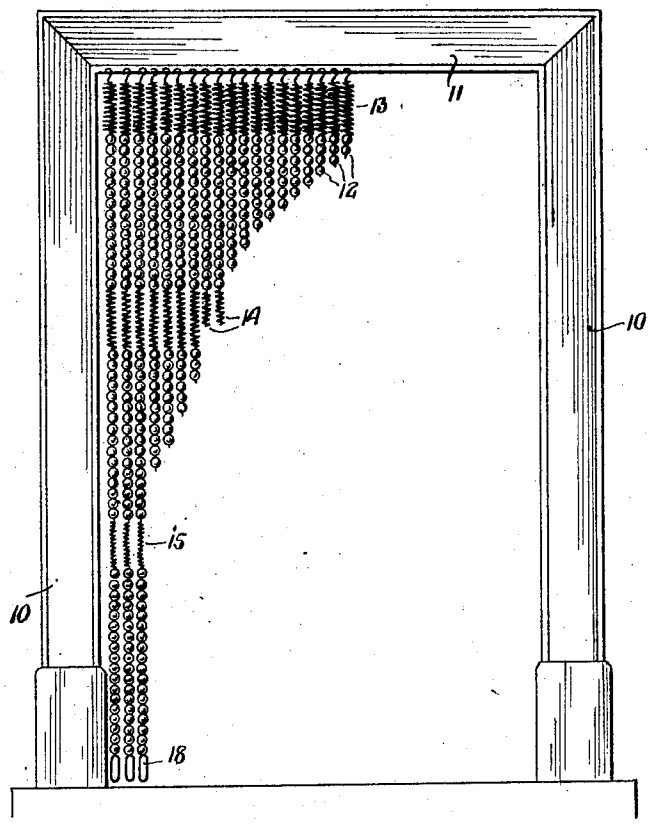



Fig. 2

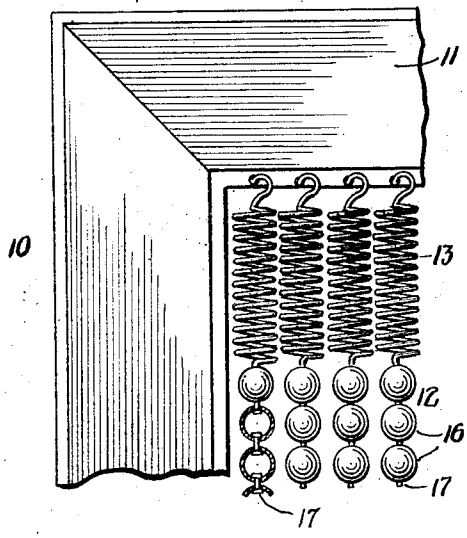
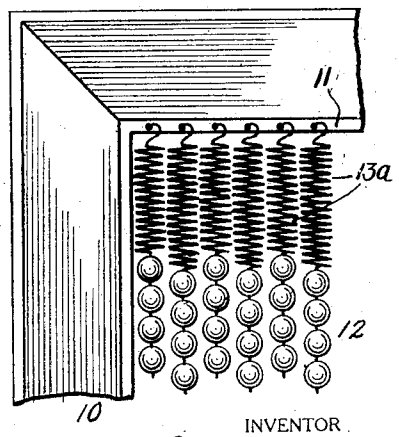



Fig. 3




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# UNITED STATES PATENT OFFICE.

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## DOOR OR WINDOW SCREEN.

Application filed August 11, 1926. Serial No. 128,539.

This invention relates to screens for doors or windows and has particular reference to hanging devices for guarding the openings of doors and windows for the exclusion of flies, mosquitoes, or other insects.

Among the objects of the invention is to provide a simple, neat, and sanitary construction constituting a means for closing the opening of a door or doorway, for the effective exclusion of insects, and yet by a means that will not obstruct the passage way for persons.

A further object of the invention is to provide a series of pendant devices for guarding the doorway or window, the same being so constructed as to be constantly in motion, whereby the guarding of the doorway or window is made absolute and dependable at all times.

When screen doors are used it is a common experience that flies or mosquitoes may collect upon the outside thereof and when the door is opened many of the insects will enter. As a further object of this invention, therefore, I provide a means whereby insects, especially flies, are guarded away from the door due to the continual vibration or agitation of the elements which constitute the screen or closure, and therefore when the screen elements are parted to allow a person to pass through there are no flies present to seek admission into the house, room, store, shop, or other place. It being usually conceded that flies and other analogous insects are a menace to health, it follows that one of the principal objects of my invention is to protect or conserve the health of citizens.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a front elevation of one form of my invention, parts being broken away for convenience.

Fig. 2 is an enlarged detail of the same construction as shown in Fig. 1.

Fig. 3 is a detail similar to Fig. 2 but showing a modification of arrangement of the beads.

Referring now more specifically to the drawings I show a conventional illustration of a frame 10 for a door, window, or like opening in a building from which flies, mosquitoes, and other insects are to be guarded or screened. From the top piece or lintel 11 of the frame are suspended in the same plane and in as close relation to each other as possible, a series of lines or strings of beads or similar objects of the same diameter and preferably of the same form. These several strings of beads are represented at 12 and each includes a top spring 13 an intermediate spring 14, and a lower spring 15. Each string of beads is sub-divided preferably into about three equal parts as shown, but the number of sub-divisions might be greater or less, and each surmounted or suspended from a spring. In any event, however, the springs are preferably graded in strength and elasticity according to the load to be hung therefrom. As indicated the strings of beads comprise beads 16 connected to each other by means of wire or headed pin links 17, but as to the manner of formation of the strings or links between beads I do not wish to be unnecessarily limited. The beads may be made of any suitable material, but in my practice I prefer to employ beads made of hollow metal for the purpose of strength, durability, and sanitation. The screen made as indicated may be readily cleansed either while being suspended or may be removed from the lintel 11 and plunged into hot water for sterilization and cleansing.

Each string of beads is attached at the bottom by means of an elongated member such as a weight 18.

As shown in Figs. 1 and 2 the series of springs are preferably of the same length and the successive beads are arranged in horizontal rows. In Fig. 3, however, the springs 13ª are shown of different lengths which cause the beads to be arranged in diagonal rows or in staggered relation. As premised above the beads are in practically constant motion due to the peculiar manner of suspending them and the further fact that the different portions of the strings are suspended from springs of different weights or strengths. It is to be noted also that with the springs arranged as in Fig. 3, those of different lengths have slightly differing degrees of elasticity which results in a slight variation in the vertical vibrations of the

successive strings of beads. The purpose of the pendants 18 is to add a touch of finish to the lower ends of the strings and also to assist in insuring the desired degree of elastic action to the mechanism.

I claim:

1. The herein described screen for excluding insects from a doorway or window, the same comprising a succession of strings of beads in the same plane and in close relation to one another, each string being suspended at the top of the opening from a coil spring and having other springs interposed along its length.

2. A device as set forth in claim 1 in which each string includes a plurality of coil springs so related to one another as to strength as to correspond to the respective loads suspended therefrom, and a pendant weight attached to the lower end of each spring.

In testimony whereof I affix my signature.

MICHELE ZECCHINO.