

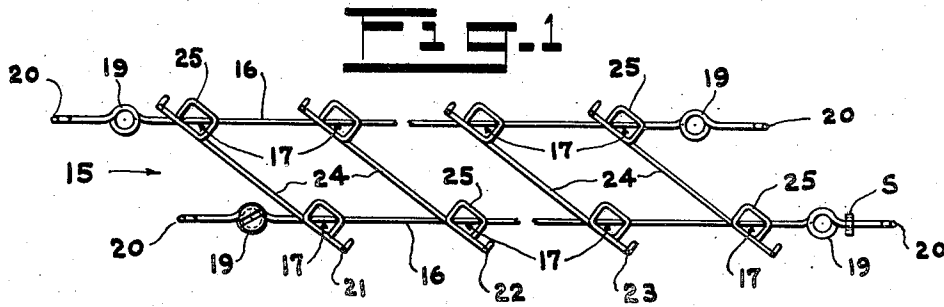
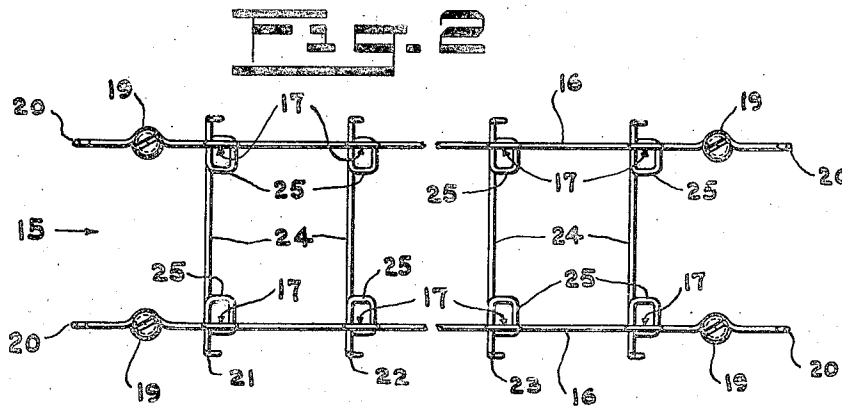
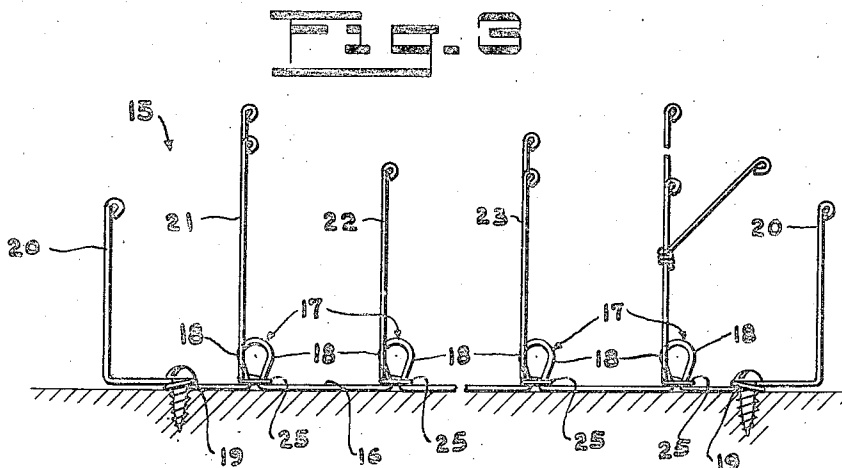
Jan. 11, 1949.

J. S. PELES
BIRDPROOFING

2,458,727

Filed June 27, 1944

2 Sheets-Sheet 1



INVENTOR
JULIUS STANLEY PELES

BY
E. M. Marshall
ATTORNEY

Jan. 11, 1949.

J. S. PELES

2,458,727

BIRDPROOFING

Filed June 27, 1944

2 Sheets-Sheet 2

Fig. 4

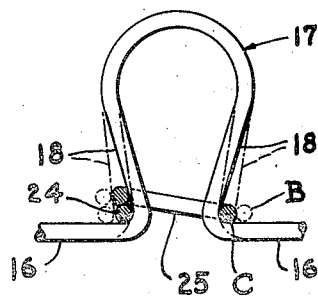


Fig. 5

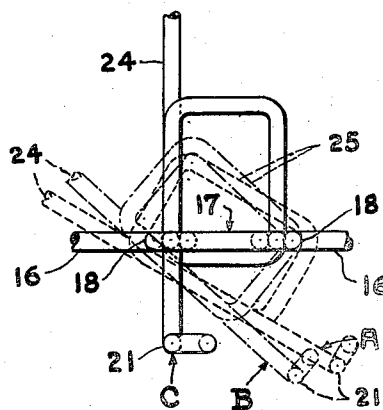
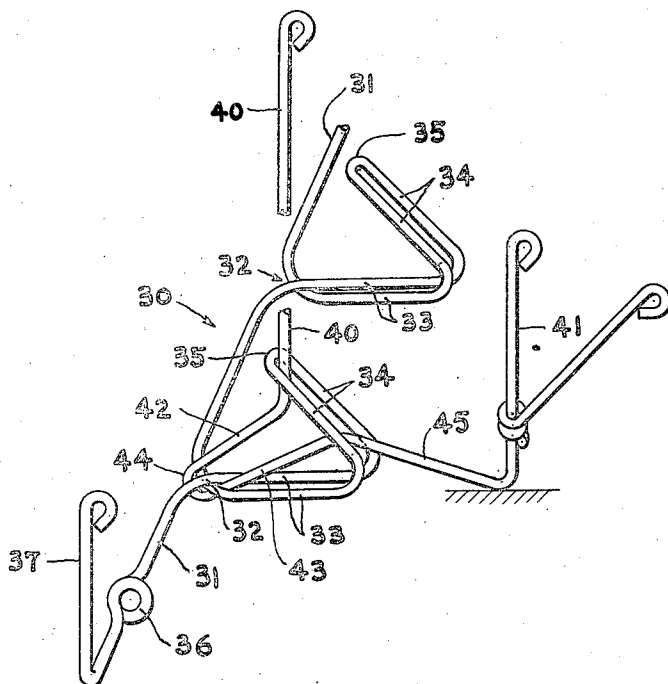


Fig. 6



INVENTOR

JULIUS STANLEY PELES

BY

E. W. Marshall
ATTORNEY

UNITED STATES PATENT OFFICE

2,458,727

BIRDPROOFING

Julius Stanley Peles, New York, N. Y.

Application June 27, 1944, Serial No. 542,348

9 Claims. (Cl. 20—1)

1

This invention relates to birdproofing and it has among its objects the provision of improved devices which can be manufactured more cheaply and which are better adapted for shipment in compact form.

Because birdproofing is often used in very considerable lengths for application on large buildings, the problem of shipment is generally serious. This problem is aggravated by the usually rigid structures employed which render the birdproofing cumbersome for packaging and shipment.

Since the wire of which birdproofing is made generally requires permanent joints for suitable rigidity to maintain the structures employed in operative form, to prevent access of birds into relatively small spaces, it has been customary to produce such joints by soldering or spot welding. This has resulted in making birdproofing expensive, because of the great number of joints involved.

It is an object of this invention to provide birdproofing which shall avoid the aforesaid difficulties and afford structures which are inexpensive to manufacture and which can be shipped in knocked-down form for rapid and easy assembling at the location at which it is to be installed, and without requiring any particular skill in so doing, with resultant joints which are strong and durable and form a rigid or resilient engagement so that the interconnected parts are free of vibration and cannot accidentally move to upset the critical spacing employed to prevent birds from alighting on the protected parts of a building.

Another object of the invention is the provision of such improved birdproofing for birds of different sizes such as pigeons, starlings and sparrows.

Another object of the invention is to furnish birdproofing having improved means whereby it can be secured in every conceivable location, and in difficult places, on narrow ledges, fences and so on.

Another object of the invention is to furnish improved birdproofing which can be arranged and rearranged at the building to suit the varying conditions encountered at different points along a ledge.

Another object of the invention is to construct improved birdproofing which can be readily modified after installation to increase the density of the birdproofing or to otherwise vary the same according to the type of birds encountered.

This application is a division of my application Serial No. 512,951, filed Dec. 4, 1943.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the inven-

2

tion consists in the novel combinations and arrangements of parts hereinafter described in their preferred embodiments, pointed out in the appended claims and illustrated in the annexed drawings, wherein like parts are designated by the same reference characters throughout the several views.

In the drawings:

Figure 1 is a plan view of birdproofing which embodies the present invention with the parts thereof in relative positions they assume while being assembled.

Fig. 2 is a similar view with the parts in their assembled relative positions.

Fig. 3 is a side elevation of the parts shown in Fig. 2.

Fig. 4 is an enlarged view in elevation with parts in section of a detail of the construction shown in the preceding figures, and indicating in dot-dash lines the resilient action at the joints to prevent vibration.

Fig. 5 is a plan view of the parts shown in Fig. 4 illustrating the assembling operation.

Fig. 6 is a fragmentary perspective view of a modified structure which also embodies this invention.

Referring to the drawings, 15 in Figs. 1-3 designates my improved birdproofing. This comprises two identical track wires 16 having equally spaced vertical loops 17 formed therein. The specific form of these loops is shown in Fig. 4. Each is open at the bottom, so that its sides 18 are adapted to act resiliently. Normally, the loop is in the condition shown in dot-dash lines, and when in use, as in Figs. 2 and 3, the loops are in the condition shown in full lines in Fig. 4. The lower part of the loop is narrowed to form a constricted neck, and when the parts are assembled this constriction is increased by causing the sides 18 to be bent toward each other. As the wires 16 are relatively thick, say $\frac{3}{8}$ or $\frac{1}{2}$ inch stock, the spring action involved is considerable. Intermediate of or adjacent to the ends of the wires 16, loops 19 normal to the loops 17 are formed for anchorage means to receive nails, screws, bolts, hooks or other fastenings for securing the track wires on a ledge, fence, or some part of a building. The extreme end portions of the wires 16 are bent upwardly at 20 to form birdproofing elements as hereinafter described.

Supported by the track wires 16 is a series of vertical U-shaped wire members 21, 22, 23 which may be of different heights, but are otherwise identical. Experience has indicated that the height of the vertical wires should be about two inches for sparrows, four inches for starlings and six inches for pigeons. In principle, if a bird attempts to alight, the upright wires should prevent it from folding its wings, and this will cause the bird to go elsewhere. Although the

device 15 indicates wires of different regularly recurrent heights, it is to be understood that the wires may all be of the same height according to the birds that frequent the building. While it may be assumed that the six inch wires should keep away the smaller as well as larger birds, yet in practice a smaller bird might be able to alight between the wires, a result it could less easily accomplish if the wires were shorter so that their upper ends are more immediately adjacent to the bird for obstructing and rendering its movements uncomfortable. The use of shorter and longer wires thus represents a compromise in endeavoring to furnish birdproofing for birds of different varieties common in urban areas, especially as it has been observed that even the shorter wires will often discourage the larger birds.

The ends of the members 21, 22, 23 are straight vertical wires between which are intermediate portions 24 that may be straight or curved, each of which is provided with a pair of identical loops 25 lying in generally horizontal planes. These loops are formed by simple turns of the wire, the stiffness and strength of the wire being relied up to maintain the operative shape of the loops. The inner transverse dimension of the loop is somewhat less than the outer dimension of the restricted part of the necks of the loops 17 but their diagonal dimension is sufficient to clear the widest parts of the loops 17 to facilitate assembling of the birdproofing as hereinafter described. The track loops 17 extend upward through the loops 25 so as to engage at the contracted portion thereof as in Fig. 4. Hence the track loops form heads interlocked with the loops 25 to prevent removal of the wires 21, 22 and 23. Further, the track loops are under resilient pressure as they tend to expand, and thus snugly hold the wires 21, 22, 23 without any possible vibration. The space protected by these upright wires is closed at its ends by the track wire portions 20.

For installing the birdproofing the track wires 16 may be cut to suitable lengths or shipped in coil form. These wires are laid on a ledge and only the lower one, as shown in Fig. 1 is secured at its ends by a screw passing through the left hand loop 19 and a staple 5 over the wire 16 near its other end. The upper track wire is positioned parallel to the lower one but offset to the left to bring its loops 17 into diagonal relation to the corresponding loops of the lower track wire. Then the cross wire members 21, 22, 23 are applied. In the diagonal position shown, these loops 25 will clear the loops 17. Then the upper track wire is pulled to the right to the position in which it is shown in Fig. 2. This causes the cross wires to swing clockwise and their loops 25 will spring the loops 17 from the dot-dash position in Fig. 4 to the full line position, thus forming a snug engagement.

In Fig. 5 the loop 25 is shown at A in dotted lines in the diagonal position in which it is passed over the loop 17. It is then turned in a clockwise direction to the position B, shown in dot-dash lines when its longer sides engage the neck of the loop 17 in its expended condition. Further turning of the loop 25 in the same direction brings it to the position C shown in full lines where the neck of loop 17 is contracted between the longer sides of loop 25. The upper track wire is then forced as far away from the lower track wire as the loops 25 will allow and is affixed to the base structure by screws passing through its loops 19 and another screw passed through the right hand loop of the lower track wire.

In Fig. 6 is shown a modification 30 according to which U-shaped wires similar to those shown at 21, 22, 23 in the previous figures can be secured in place with a single wire track. This is often desirable as on rather narrow ledges, or on ledges which are of special shape or construction. The track wire 31 is bent to cross itself at 32 and to form a base portion 33, and a diagonally upright portion 34. Two parallel parts of the wire form the portions 33 and 34 and they are joined at the upper end of the diagonal portion as at 35, thus forming an upstanding loop. A series of such loops is formed in the track wire and it is bent near its ends into loops 36 for the reception of fastening devices. Beyond the loops 36 the track wire is bent to form upstanding portions such as 37.

U-shaped wire members are secured to the track wire. Each of these members has two vertical fingers 40 and 41. The finger 40 passes between the parallel wires 34 and abuts the loop 35 in the track wire. Below the diagonal wires 34 it is bent downwardly and outwardly, as shown at 42 and then upwardly as shown at 43 to form a bight 44 which engages the track wire where it is crossed, as at 32. The part 43 passes between the wires 34 at a point spaced from the loop 35 and then extends downwardly as shown at 45 to the base of the finger 41. The resiliency of the track wire holds the U-shaped wire members securely in desired position. When the track wire is secured to a base the corners between the portions 44 and the fingers 41 are drawn down onto the base.

Various modifications in construction, mode of operation, method and use of an invention may and do occur to others, especially after benefiting from knowledge of such disclosure as that herein presented of the principles involved, but the invention itself is not confined to the present showing.

I claim:

1. Bird proofing comprising a pair of parallel separate resilient track wires, each having base portions in longitudinal alinement with open-ended loops at spaced intervals between said base portions extending vertically therefrom, with restricted neck portions near said base portions, and a plurality of separable wire elements, each comprising a pair of parallel fingers and an interconnecting portion transverse to the track wires, each of said transverse portions having a pair of spaced closed loops therein normal to said fingers arranged to be seated on the base portions of the track wires, opposite inner sides of the loops in said elements being arranged to be engaged under pressure by the neck portions of the loops in the track wires to maintain the fingers in substantially vertical positions.

2. Birdproofing comprising a resilient track wire having base portions and formed with vertically disposed open ended loops between its base portions, separable wire elements having a pair of fingers, and an intermediate connecting portion with a closed loop therein normal to the fingers, said closed loop having a diagonal inner dimension of sufficient size to pass over the loops in the track wire and a shorter transverse dimension.

3. Birdproofing comprising a resilient track wire having base portions and formed with vertically disposed open ended loops between its base portions with restricted neck portions near said base portions, separable wire elements having a

5

pair of fingers and an intermediate connecting portion with a closed loop therein normal to the fingers, said closed loop having a diagonal inner dimension of sufficient size to pass over the loops in the track wire and a transverse inner dimension shorter than the normal outer dimension of the neck portions of said loops in the track wire.

4. Birdproofing comprising a resilient track wire having base portions and formed with open ended loops between its base portions, means for securing said track wire to a support with its loops in a vertical position, separable wire elements having a pair of fingers and an intermediate connecting portion with a closed loop therein normal to the fingers, said closed loop having a diagonal inner dimension of sufficient size to pass over the loops in the track wire and a transverse inner dimension shorter than the normal outer dimension of the neck portions of said loops in the track wire.

5. Birdproofing comprising a resilient track wire having base portions and formed with open ended loops between its base portions with restricted neck portions near said base portions, means for securing said track wire to a support with its loops in a vertical position, separable wire elements having a pair of fingers and an intermediate connecting portion with a closed loop therein normal to the fingers, said closed loop having a diagonal inner dimension of sufficient size to pass over the loops in the track wire and a transverse inner dimension shorter than the normal outer dimension of the neck portions of said loops in the track wire.

6. Birdproofing comprising a pair of like resilient track wires having base portions and formed with vertically disposed open ended loops between their base portions, separable wire elements having a pair of fingers, and an intermediate connecting portion with a pair of spaced closed loops therein normal to the fingers, said closed loops having diagonal inner dimensions of sufficient size to pass over the loops in the track wire and shorter transverse dimensions.

7. Birdproofing comprising a pair of like resilient track wires having base portions and formed with vertically disposed open ended loops between their base portions with restricted neck

6

portions near said base portions, separable wire elements having a pair of fingers and an intermediate connecting portion with a pair of spaced closed loops therein normal to the fingers, said closed loops having diagonal inner dimensions of sufficient size to pass over the loops in the track wire and transverse inner dimensions shorter than the normal outer dimensions of the neck portions of the loops in the track wire.

8. Birdproofing comprising a pair of like resilient track wires having base portions and formed with open ended loops between their base portions, means for securing said track wires to a support with their loops in vertical positions, separable wire elements having a pair of fingers and an intermediate connecting portion having a pair of spaced closed loops therein normal to the fingers, said closed loops having diagonal inner dimensions of sufficient size to pass over the loops in the track wire and shorter transverse dimension.

9. Birdproofing comprising a pair of like resilient track wires having base portions and formed with open ended loops between their base portions with restricted neck portions near said base portions, means for securing said track wires to a support with its loops in vertical positions, separable wire elements having a pair of fingers and an intermediate connecting portion with a pair of spaced closed loops therein normal to the fingers, said closed loops having diagonal inner dimensions of sufficient size to pass over the loops in the track wire and transverse inner dimensions shorter than the normal outer dimension of the neck portions of said loops in the track wire.

JULIUS STANLEY PELES.

REFERENCES CITED

40 The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
108,491	Lee	Oct. 18, 1870
1,500,832	Ludwik	July 8, 1924
2,063,827	Place	Dec. 8, 1936
2,142,371	Peles	Jan. 3, 1939