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C. C. BURDINE

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WEATHER STRIPPING

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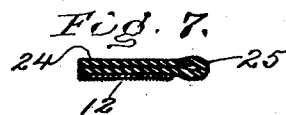
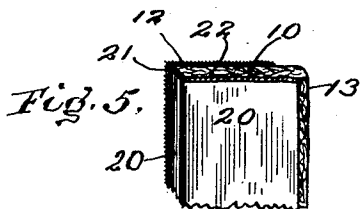
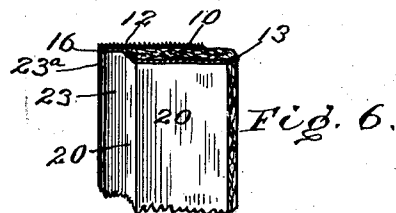
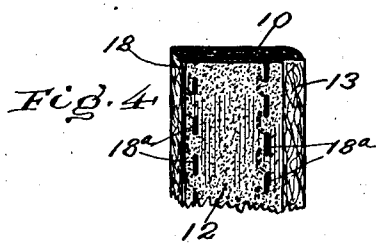
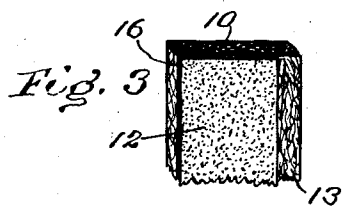
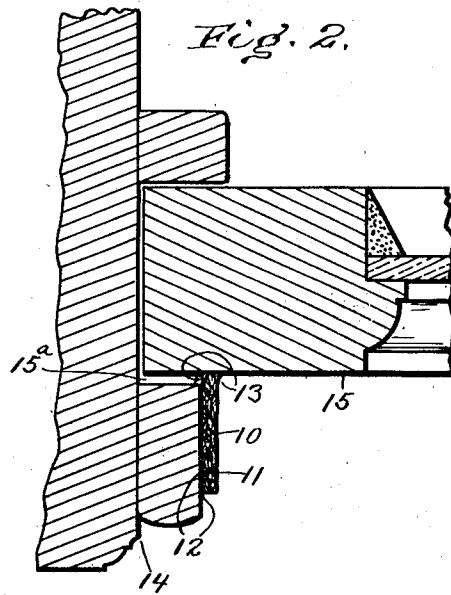
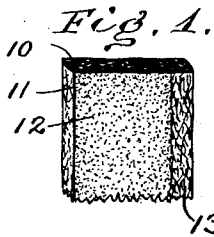
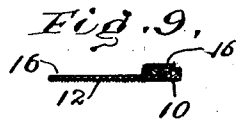
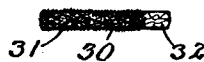


*Fig. 8.*



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## UNITED STATES PATENT OFFICE

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## WEATHER STRIPPING

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This invention relates to improvements in weather-stripping, and has particular reference to such materials for use as accessories in sealing doors, windows, and the like.

5 In order to eliminate drafts and to reduce loss of heat in cold weather, building of various kinds have been equipped with weather-stripping, but the materials commercially available for this purpose have given rise to 10 serious objections for several reasons. Such materials have comprised felt strips, and wooden strips lined with rubber, and have been applied to the window and door frames by means of nails, or screws. As a result, considerable labor has been necessary to apply 15 the weather-stripping, and particularly in the case of those with wooden strips, a certain amount of skill as a carpenter is necessary in order to avoid mutilation of the strips and the parts to which they are secured. The 20 felt strips, when used alone, frequently become loose, and are furthermore unsightly due to the fact that they collect dust and the like. In the event that weather-strips are removed without being replaced, the nail holes 25 are left visible. Due to the impossibility of driving nails into metal, the prior art weather-stripping has not been capable of use in modern apartment houses, hotels, office buildings, etc., wherein metal window 30 frames and door frames are employed. The foregoing and other objectionable features of the prior art are overcome by the present invention, which has among its objects the 35 provision of weather-stripping which will be more economical, more easily applied, more durable, and of neater appearance than prior art weather-stripping.

More specifically I apply an adhesive coating to one surface of a strip of felt, rubber, or 40 other suitable material, so as to form an adhesively-coated weather-strip which can be fastened in place without the employment of extraneous fastening devices, such as nails, 45 screws or the like, which have been customary in the past. Thus I avoid marring of the frames, or other parts to which the material is applied, and, furthermore, enable the weather-strips to be readily and conveniently 50 attached to metal window frames and door

frames. Preferably, the adhesive consists of a non-hardening rubber base, like that employed in the well-known adhesive surgical or mending tapes, and is adapted to retain 55 its adhesiveness for an indefinite length of time when made up in stock. Or, the adhesive may be in the form of a dry coating which may be softened in any suitable manner when the device is applied to the parts where it 60 is to be used. The adhesive medium may be applied to and carried directly by the weather-strip, or it may be attached thereto through the medium of a strip of adhesive-carrying tape, the latter to be secured to the 65 weather-stripping in any suitable manner. The advantage of the latter is that the weather-strip may more easily be removed from the parts without damage to the weather-excluding portion and, if desired, be preserved 70 for future use.

An advantage of the device consists in its sanitary features, in that its adhesion to the parts is so intimate that dust, vermin, larvae 75 of insects, germs, etc. cannot find lodgment.

A further advantage is that it may be 75 worked into exposed corners, cavities and crevices which are inaccessible for the application of the prior art forms of weather-stripping.

For a fuller understanding of the nature 80 and objects of the invention, reference should be had to the following detail description taken in connection with the accompanying drawings, in which—

Figure 1 is a sectional perspective view 85 of one embodiment of the invention, with the adhesive applied directly to the strip of weather-stripping material;

Fig. 2 is a cross section of the same as applied to a window frame and sash; 90

Fig. 3 is a sectional perspective view showing the adhesive applied to the weather-stripping material through the medium of a carrying tape of adhesive, the latter in this 95 instance being cemented to the strip;

Fig. 4 is a view similar to Fig. 3, but showing the adhesive-carrying tape stitched to the weather-stripping material;

Fig. 5 is a view similar to Fig. 4, but showing the weather-stripping material provided 100

with a reinforcing strip on its reverse face and outer edge;

Fig. 6 is a modified form of the device;

Fig. 7 is a further modified form of the device;

Fig. 8 is another modified form of the invention; and

Fig. 9 is another modified form of the invention.

Referring to Fig. 1, the numeral 10 indicates a portion of a strip of weather-excluding material, such as felt, rubber, or the like. Applied to one face of the material, as at 11, is a coating of adhesive 12, preferably of a non-hardening rubber base. In order properly to apply this adhesive coating, that portion of the weather-stripping to which the adhesive is applied may be sized with shellac or varnish better to carry the adhesive material, as well as to prevent the latter from being absorbed too deeply into the material, of which the weather-strip is composed.

In applying the adhesive coating 12, a marginal space 13 extending longitudinally along one edge of the weather-strip is left free of adhesive in order that said marginal portion 13 may adapt itself to inequalities in the parts adjacent to which the weather-strip is applied, and also that the adhesive portion may not come in contact with the sash or other movable part.

In Fig. 2 the weather-strip is shown applied to a window-frame 14 with its uncoated portion 13 in sealing and sliding contact with the window-sash 15. It will be noted here that the adhesive 12 is out of contact with the sliding sash 15 and that the free flexible edge 13 of the strip engages the side of the sash, completely sealing the space 15<sup>a</sup> through which cold air would otherwise enter.

Referring to Fig. 3, the numeral 16 indicates a strip of textile tape having its back cemented to the weather-strip 10 in any suitable manner and carrying on its opposite face the adhesive 12.

Another modification is shown in Fig. 4, wherein 18 indicates a tape stitched as at 18<sup>a</sup> to the weather-stripping material and carrying upon its outer face the adhesive 12. In both forms illustrated in Figs. 3 and 4, the free marginal edge 13 is retained for the purposes explained with reference to Figs. 1 and 2.

Referring to Fig. 5, the weather-stripping is shown provided with a reinforcing strip of any suitable material 20 extending around the outer edge 21 of the material and over the face 22 opposite to which the adhesive is applied. This reinforcing serves the purpose of preventing breakage or disintegration of the insulating material, improves the general appearance of the article and may be made of such a character as to harmonize with any type of surroundings.

Fig. 6 illustrates the manner in which the

intermediate adhesive-carrying tape may extend beyond the outer edge of the weather-strip in order to provide a wider facing of adhesive than a narrow piece of weather-stripping material would permit. To effect this object, the reinforcing strip 20 is brought around the extended edge of the adhesive-carrying tape and formed with a flange 23 co-extensive with a laterally extending edge 23<sup>a</sup> of the tape.

Fig. 7 shows a strip of material 24 doubled over and forming a longitudinally-extending loop 25 on its sealing or contacting edge.

In Fig. 8 the weather-stripping 30 is shown with the adhesive medium 31 permeating its mass but provided with a longitudinally-extending edging 32 free of adhesive.

In Fig. 9 the weather stripping 10 is shown in the form of a narrow edging attached to and carried by one edge of the adhesive tape 16.

In using the improved weather-stripping it is only necessary to cut the material to proper length, and then apply it with suitable manual pressure to effect its adhesion. In actual practice the weather-stripping may be initially provided with a liner of holland, wax paper, or the like to protect the adhesive surface until it is to be used, and such a liner can easily be stripped off just prior to the application of the weather-stripping.

From the foregoing it will be evident that I have provided an improved weather-stripping which is of extremely simple construction and capable of being easily secured to or removed from a window or door frame of either metal or wood. Due to the fact that the material is held throughout its entire length, it will not bulge and become unsightly, and in fact, when suitably embellished, it will enhance rather than detract from the appearance of the room. Obviously, the invention is susceptible of further modification in the details of construction, and the right is herein reserved to make such changes as fall within the scope of the appended claims without departing from the spirit of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. Weather-stripping, embodying a body of material in the form of a strip, and bearing over a side surface a longitudinal coating of adhesive of less width than the strip, the longitudinal edge-portion of the strip beyond the adhesive being flexible and yielding, and constituting a weather-excluding portion.

2. A weather-strip, consisting of relatively thick cushioning, a strip of material having an adhesive coating on one side of less width than that of the strip for attachment to a frame and having an uncoated marginal edge to serve as a weather seal.

3. In a weather-strip, the combination of a strip of flexible cushioning material, a strip

of adhesive-carrying material attached thereto, and means for attaching the same together.

4. In a weather-strip, the combination of a strip of weather-stripping material, an adhesive on one face thereof, and a continuous facing of reinforcing material on the opposite face thereof.

5. In a weather-strip, a strip of flexible material, and a strip of adhesive-carrying material overlying a portion of one surface of said flexible material, an edge of said adhesive-carrying material extending beyond the corresponding edge of the flexible material.

6. As a new article of manufacture, a weather strip comprising a strip of felt or similar cushioning material, having on one of its surfaces a longitudinal coating of non-drying weather-proof adhesive, said coating being of less width than the strip whereby to leave a free cushioning edge.

7. As a new article of manufacture, a weather strip comprising a strip of felt or similar cushioning material, having on a portion of one of its surfaces a strip of adhesive tape which is coated on both sides with a weather-proof adhesive, said adhesive tape being so arranged as to leave one marginal edge of the felt strip free to bear against a relatively moving part of a structure to which the tape is secured.

In testimony whereof I affix my signature.

CHARLES C. BURDINE.