

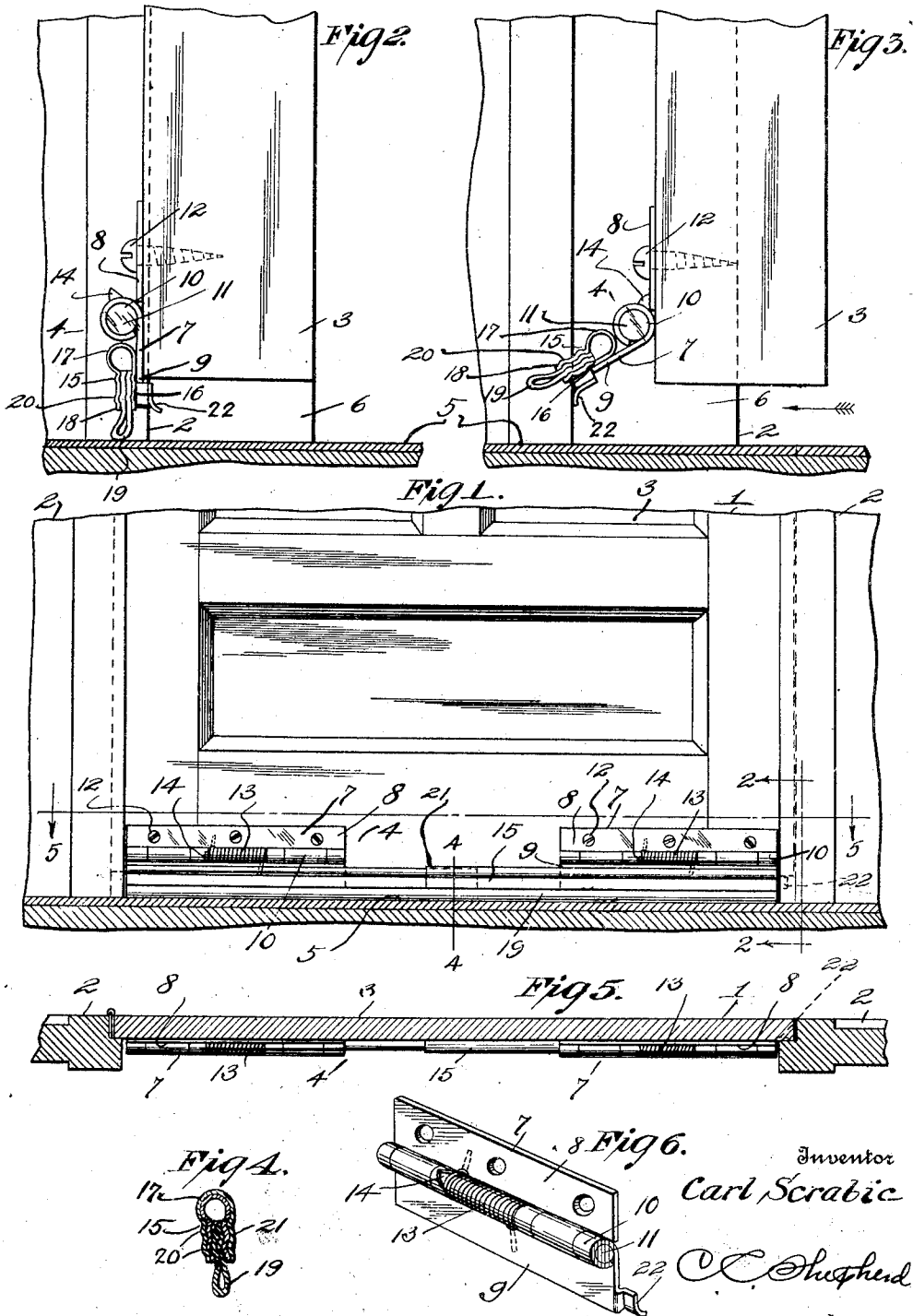
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DRAFT STRIP

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To all whom it may concern:

Be it known that CARL SCRABIC, a citizen of the United States, residing at Urbana, in the county of Champaign and State of Ohio, has invented certain new and useful Improvements in Draft Strips, of which the following is a specification.

This invention relates to improvements in weather or draft strips, employed in connection with the lower edges of swinging doors or other closures for the purpose of sealing door openings when the doors are closed and to thereby overcome obnoxious drafts, the entrance of cold air and other conditions disagreeable and harmful to the occupants of a room or building.

Among the objects of the invention are to provide a weather or draft protecting strip structure designed for attachment with the lower edges of door members and of such construction that when said door members are in an opened or partially opened position the draft strips will be elevated above the surface of the floor permitting of free and unrestricted swinging movement on the part of the door members, and when the latter assume their closed or latched positions, the said strips will be automatically operated to assume lowered positions, closing the spaces existing between the lower edges of the door members and the floor surfaces over which they operate; to provide a weather strip construction which will be adjustable longitudinally so as to adapt the same to door members of varying width; and the provision of a strip of the character specified which will be strong, practicable and efficient in use, effective in carrying out its intended purposes, involving no manual attention whatever in controlling its operation and of such form as to be economically manufactured and distributed.

With these and other objects in view, as will appear as the description proceeds, the invention consists in the novel features of construction, combinations of elements and arrangements of parts, hereinafter to be fully described and particularly pointed out in the appended claims.

In the accompanying drawing:

Figure 1 is a front elevation of the improved draft strip structure comprising the present invention.

Figure 2 is a vertical sectional view taken on the line 2—2 of Figure 1 and illustrating the strip in its lowered or active position,

Figure 3 is a similar view of the strip in its elevated or inactive position, or the position the strip assumes when the door is opened,

Figure 4 is a vertical section on the line 4—4 of Figure 1,

Figure 5 is a horizontal sectional view on the line 5—5 of Figure 1, and

Figure 6 is a detail perspective view of one of the hinge members.

Referring more particularly to the drawings the numeral 1 designates a doorway, including a door jamb 2 and a swinging door 3 hinged to the jamb 2 in the usual manner and adapted to be swung to opened or closed positions. Mounted upon the lower edge of the door is the weather or draft strip structure 4 comprising the present invention, and this strip is employed and positioned so that when the door occupies its closed position, the strip will engage the floor surface 5 over the full width of the door, so that the space 6 formed between the lower edge of the door 3 and the surface 5, and employed for clearance purposes, will be closed by the structure 4 to prevent the entrance of drafts, or the elements into a room or building in which the door is situated.

In the specific form of the invention disclosed the structure 4 includes hinge members 7, each of which consists of a fixed leaf 8, and a movable leaf 9, which have their adjacent edges formed to provide the ordinary barrels 10 for pintle rods 11, about which the lower leaves 9 will be permitted to oscillate. Fastening screws 12, pass through the upper leaves 8 and rigidly connect the latter with the door. Around the pintle rods 11 of the hinge members are located coil springs 13 which are so formed that their opposite ends will engage with the fixed and movable leaves 8 and 9 respectively, so that the lower or movable leaves by the action of the springs will normally be elevated away from the floor surface, as shown in Figure 3. Fixed stops 14 are provided upon the movable leaves to limit the upward swinging movement thereof, the said stops being disposed for engagement with the fixed leaves 8.

Carried by each of the movable leaves 9 is a resilient clamping strip holder 15. Each of these holders includes a fixed rear portion 16 arranged to be connected in any rigid manner with the leaves 9, and the upper edges of the portions 16 terminate in

spring loops 17, which, in turn, terminate in downwardly extending resiliently movable clamping portions 18. By this construction it will be observed that the holders will be of such form that through the inclusion of the loops 17 the portions 16 and 18 will tend to engage one another. This resiliency is utilized to removably hold between the portions 16 and 18 of the holders 15 a flexible longitudinally extending draft strip 19. This member may be formed from rubber, felt or other similar tough, pliable, durable and flexible material. The portions 16 and 18 of the holders are corrugated longitudinally as at 20, and by reason of the resilient strength of the holders, the latter will exercise a sufficient degree of pressure upon the strip 19 to securely hold the latter in engagement with the holder 15, and yet when the strip 19 has become worn, the same may be removed and quickly replaced by a new strip.

It will be observed that the holders 15 project longitudinally beyond the hinge member 7, in order that the same may be telescoped as at 21, as shown more particularly in Figures 1 and 4. As manufactured, the holder 15 forms a stationary part and is fixed to each movable leaf 9, and the said holders are arranged in telescoped relationship when the structure 4 is applied to the door. By this construction it will be seen that the structure 4 is capable of being adjusted longitudinally so as to be quickly adapted to doors of any size. It will be observed that the strip 19 is of sufficient width or height so that when the leaves 9 are lowered, the lower edges of said strip will engage with the floor surface 5, so as to effectively seal the space 6 previously referred to. The important feature of the present invention resides in providing at least one of the movable leaves 9 with an offset finger 22, disposed at one of the longitudinal ends of the structure 4. As shown in Figure 5, when the door 3 assumes its closed position within the doorway 1 the finger 22 will be forced into engagement with the jamb 2, thereby oscillating the hinge leaves 9 so that the strip 19 will be forced to assume its lowered position, when the door is closed, so as to close and effectively seal the space 6, the movable leaves 9 being oscillated against the pressure exercised thereon by the springs 13.

In view of the foregoing it will be seen that a weather strip is provided in conjunction with a swinging door or closure which will be of such form that when the door assumes an opened position, the strip will be automatically elevated above the floor surface, so as to provide ample clearance for floor coverings or the like, and admit

of free swinging movement on the part of the door, and that when the door finally assumes its completed closed or latched position, the strip 19 will be oscillated to then only assume its lowered position and to accomplish the purpose for which the same is primarily intended. The structure is completely automatic and does not require any manual attention whatever when in an operative condition. The structure lends itself to convenient and economical manufacture, is durable and substantial, constitutes an attractive fitting for a door so as not to mar the beauty or architectural lines of the latter, and moreover, by the adjustment provided by the telescopic holders, the strip is capable of being readily accommodated to doors of varying width. In view of the above it is believed that the construction and operation of the invention will be readily apparent to those versed in the art, and therefore a more extended explanation has been omitted.

What is claimed is:

1. A door strip comprising a hinge member including a fixed leaf adapted to be rigidly secured to the lower part of an associated door, a movable leaf pivotally connected to said fixed leaf and movable independently of the door, a weather strip of a flexible material extending longitudinally of and connected with the lower movable leaf, spring means cooperative with said movable leaf for normally maintaining the latter and said flexible strip in an elevated position, means operating to limit the extent of elevation of said movable leaf, and an offset finger carried by said movable leaf and movable under the lower edge of the door and cooperative with an associated door jamb to automatically swing said movable leaf and the flexible strip carried thereby to a lowered active position when said door is in engagement with said jamb.

2. A draft strip structure for doors comprising a hinge member adapted to be carried by the lower part of a door and including stationary and movable leaves, spring means cooperative with said movable leaf for normally maintaining the same in an elevated position, a resilient holder carried by the movable leaf, a weather strip of flexible material removably clamped in said holder, and an offset finger carried by the movable leaf for movement under the lower edge of the door for engagement with a door jamb for swinging said movable leaf, against the resistance of said spring means to a lowered position only when said door is in engagement with said jamb.

In testimony whereof I affix my signature.

CARL SCRABIC.