No. 746,910. PATENTED DEC. 15, 1903.

W. C. ZIMMERMANN.

WEATHER STRIP.

APPLICATION FILED APR. 2, 1903.

NO MODEL.

Fig. 1.

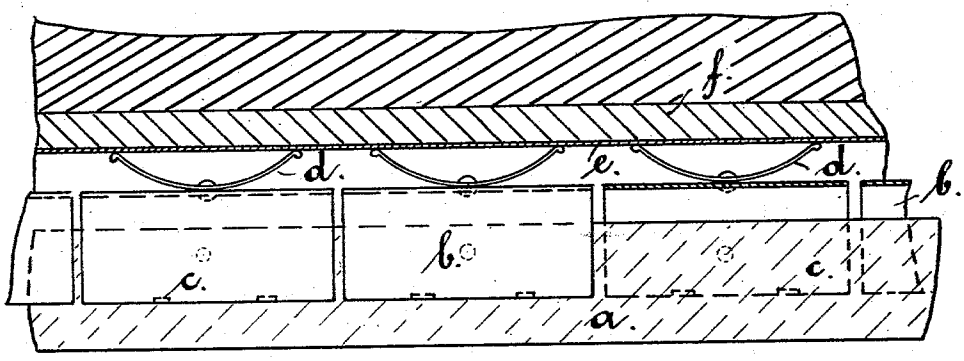


Fig. 2.

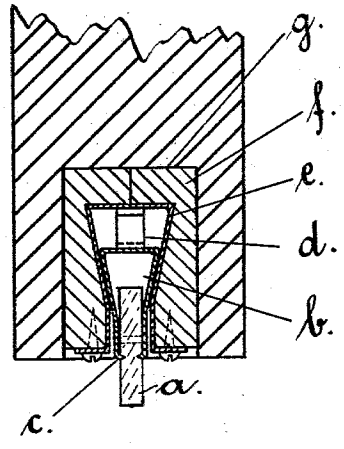
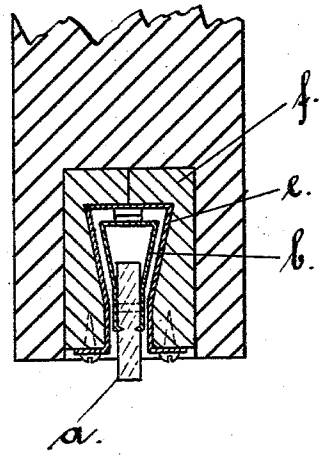


Fig. 3.



Witnesses:
Marg. Peters.
Karl Schulz.

Inventor:
Willy Carl Zimmermann
by Erich Peters.
his attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 746,910. Patented December 15, 1903.

UNITED STATES PATENT OFFICE.

WILLY CARL ZIMMERMANN, OF DÜREN, GERMANY.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 746,910, dated December 15, 1903.

Application filed April 2, 1903. Serial No. 150,791. (No model.)

To all whom it may concern:

Be it known that I, WILLY CARL ZIMMERMANN, merchant, a subject of the King of Prussia, German Emperor, residing at 12 Burgstrasse, Düren, Germany, have invented a new and useful Improvement in Weather Strips, of which the following is a specification.

My present invention concerns a contrivance which has the object of closing the space or slit between the lower edge of the door and the floor, which generally exists when the door is closed.

In the accompanying drawings, Figure 1 represents a longitudinal section; Fig. 2, a cross-section with the strip below; Fig. 3, a cross-section with the strip raised.

The known closing-off elastic strip *a* is grasped by a number of short spring-clamps *b*. The strip *a* may therefore be fixed in a slanting position corresponding to the unevenness of the floor or sill. The sides of the clamp run parallel in their lower part and diverge in the upper part, so that a wedge-like cross-section is formed. The connecting top portion of the clamps is straight and has a flat spring *d* fastened on it. These clamps *b*, with the strip *a* grasped by them, are pushed into a lining-plate *e* for the wedge-shaped opening in part *f*, which carries the weather-strip. The lining-plate *e* is made of plate-iron fastened in wooden bars *f*, having parallel sides which are fixed in a suitable small groove *g* in the lower edge of a door. The springs *d* press the clamps always down, each one for itself, so that the elastic strip *a* adapts itself to all unevenness of the floor under the door, and thus a tight closing is obtained. Neither does a bending or sinking of the door prevent the contrivance working, as the short clamps are not influenced by a bending of the lining-plate *e*, and by the slightest raising of the elastic strip *a* they become free in their wedge-like parts from the said lining-plate *e*.

The clamps *b* can be fastened to the strip *a* by rivets; still the described arrangement of the claws *c* will be the most advantageous.

The contrivance may not only be applied to the lower edge of a door, but can be applied to so-called "wind-screens" or "folding" doors for securely closing the side or middle parts.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a weather-strip for doors the combination of short wedge-shaped clamps provided with claws, an elastic strip grasped by said clamps, springs fastened on the top of each clamp, a wedge-shaped lining-plate supporting the mentioned clamps, all as and for the purpose set forth.

2. The combination with a door provided at its bottom edge with a groove, wooden bars in the groove, a furrow in cross-section wedge-shaped in its upper part and with parallel sides in its lower part, a lining-plate in the furrow, wedge-shaped clamps provided with clamps grasping the elastic strip, springs fixed to the top of the clamps moving within said lining-plate, all as described and for the purpose set forth.

3. A device of the class described comprising a movable weather-strip consisting of a flexible strip, a number of small clamps grasping the flexible strip by means of claws, a spring on the top of each clamp, wooden bars forming a furrow wedge-shaped in cross-section in a groove of the bottom edge of a door, and a lining-plate in said furrow, all as and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

WILLY CARL ZIMMERMANN.

Witnesses:
M. FRHRR VON LYNCKER,
CARL SCHMITT.