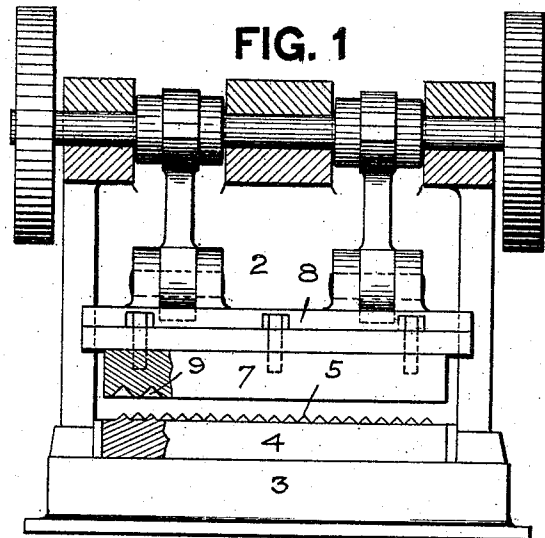


No. 848,688.

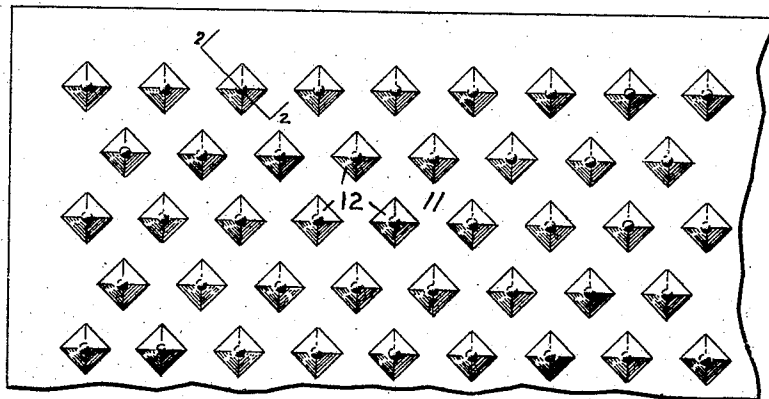
PATENTED APR. 2, 1907.

P. RIESECK.  
DIES.

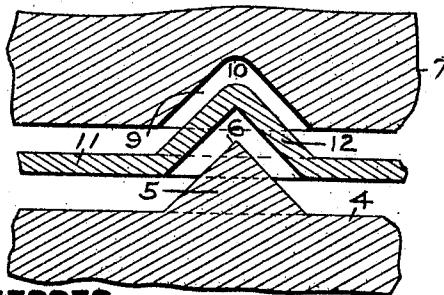
APPLICATION FILED OCT. 19, 1905.



**FIG. 3**



**FIG. 2**



**WITNESSES.**

*J. R. Keller*  
*Robert C. Zottner*

**INVENTOR.**

*Peter Riesack*  
*By Kay Zottner Winter*  
*Attorneys*

# UNITED STATES PATENT OFFICE.

PETER RIESECK, OF ALLEGHENY, PENNSYLVANIA.

## DIES.

No. 848,688.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed October 19, 1905. Serial No. 283,497.

*To all whom it may concern:*

Be it known that I, PETER RIESECK, a resident of Allegheny city, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Dies; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to dies for the manufacture of metallic cellar-doors, sidewalks, &c. The object of my invention is to provide cellar-doors or similar articles formed of metal pressed or stamped with pyramidal projections, the apexes of which are slightly rounded, so as to relieve the pressure on the foot of the pedestrian and the wear on the shoes.

To these ends my invention comprises the novel features hereinafter set forth and claimed.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a front elevation, partly in section, of a suitable press with my improved dies secured therein. Fig. 2 is an enlarged sectional detail of a portion of the dies, showing the metal stamped thereby. Fig. 3 is a portion of a metal plate pressed by said dies.

In the drawings the numeral 2 designates a suitable press upon the bed-block 3 of which is secured the lower or male die 4, having the pyramidal projections 5. These projections 5 are preferably formed with the sharp apexes 6 for the reason fully herein-after set forth. Furthermore, these projections 5 are preferably staggered with reference to each other.

The upper or female die 7 is secured to the vertically-movable head 8, working in suitable guides in the press 2. This die 7 has the pyramidal recesses 9 formed therein, coinciding with the correspondingly-shaped projections 5 in the male die 4. The apexes 10, however, of the recesses 9 are slightly rounded.

When my improved dies are in use, the metal plate 11, from which the cellar-door or similar article is to be formed, is placed upon the lower die 4 and power applied to lower the upper die 7. As the upper or female die descends the projections 5 on the male die 4 force the metal up into the recesses 9 of the die 7. This forms the pyramidal projections 12 on the metal plate 11. By having the apexes of the recesses 9 slightly rounded the apexes of the projections 12 of the finished plate are also correspondingly rounded. It is desirable, however, to preserve as nearly as possible the pyramidal form of the projections 12, and in order to accomplish this the apexes 6 of the projections 5 of the die 4 are preferably sharp. By having these apexes sharp it is possible to press the projections 12 on the plate with smaller round portions at the apexes and so preserve the pyramidal form and yet give a bearing-face at the top which will not present a sharp point to the ball of the foot of the pedestrian, which is annoying to the person and destructive to shoes.

By my improved dies I am able to finish a cellar-door with pyramidal projections to prevent slipping, while at the same time not injurious to the feet of the pedestrian. Heretofore round or bulbous projections have been used, which did not give the proper protection against slipping and which were also hard on the feet.

What I claim is—

The combination of a male die having one or more pyramidal projections thereon with sharp apexes, and a female die having coinciding recesses pyramidal in shape and having rounded apexes.

In testimony whereof I, the said PETER RIESECK, have hereunto set my hand.

PETER RIESECK.

Witnesses:

ROBERT C. TOTTEN,  
G. C. RAYMOND.