

No. 837,133.

PATENTED NOV. 27, 1906.

P. J. SHRUM.

WALL TIE.

APPLICATION FILED JUNE 24, 1905.

Fig. 1.

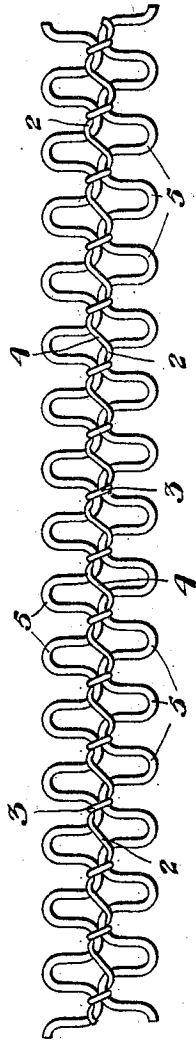


Fig. 2.

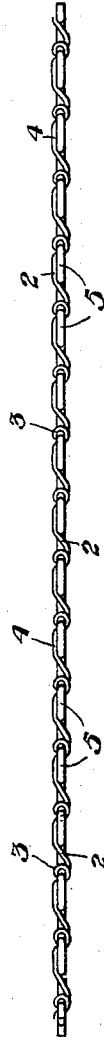
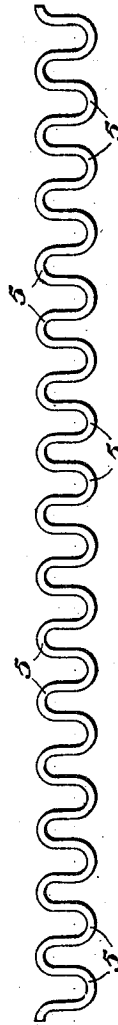


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

PETER J. SHRUM, OF BEAVER FALLS, PENNSYLVANIA, ASSIGNOR
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WALL-TIE.

No. 837,133.

Specification of Letters Patent.

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Application filed June 24, 1905. Serial No. 266,789.

To all whom it may concern:

Be it known that I, PETER J. SHRUM, a citizen of the United States, residing at Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Wall-Ties, of which the following is a specification, reference being had therein to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of my improved wall-tie. Fig. 2 is an edge view thereof. Fig. 3 is a detail view of one of the sides of the tie. Fig. 4 is a view showing the manner of application of the tie to masonry construction.

My invention relates to improvements in wall-ties adapted for use in brick or other masonry walls for forming a bond between adjacent layers of brick, &c.; and the invention consists of a plurality of longitudinal bent or corrugated metallic elements, as wire, connected or tied to each other at the bottoms of the corrugations by means of a third element, as a wire or wires, in such manner as to attach the two longitudinal elements firmly together and hold them in such relation to each other that they will maintain a flat shape, the parts forming when thus secured together practically an integral construction with greatly-increased holding function in the mortar or cement and of such nature as to prevent longitudinal elongation of the corrugated wires or strips which would have a tendency to permit separation of the rows of masonry from each other. The corrugations afford great holding power in the mortar, and the tying of two or more strips together in the manner shown prevents the elongation of the strips.

Referring now to the drawings, the complete tie is formed of two or more pieces of corrugated bars or wire, as shown in Fig. 3, which represents one of the sections of which the tie is formed. These sections are made in any suitable manner continuously, as by corrugated rollers or otherwise, and are cut into suitable lengths. Two or more of these blanks, preferably two, are then connected together along their meeting edges, as shown in Fig. 4, by means of a continuous wire 2, wrapped around the inner loops of the two sections, as shown at 3, the intervening wire between such tied portions forming a

longitudinal strand 4. When thus connected, the outwardly-extending loops 5 of the strips extend in opposite directions somewhat out of register with each other, their relative arrangement, however, being comparatively immaterial, and these outwardly-extending loops form closely-adjacent series of anchoring projections, which become embedded in the mortar when in use, the tying of the strips together by the wire 2 preventing the stretching or elongation of the corrugated strips. It will be understood that more than two of the sections may be connected together, if desired, although I have found in practice that the construction shown employing two will give excellent results.

My improved wall-tie is very light, cheap, provides smooth rounded edges and surfaces throughout without any sharp projections which are liable in time to form a starting-point or angle for cracks or lines of cleavage in the mortar or cement, and a further particular advantage of the tie is that it may be readily bent into any suitable form or at a right angle for use in "veneer" work. Nails or staples may be readily driven through the openings of the tie for securing it at any particular point. The tie possesses other features of advantage which will be appreciated by those accustomed to the use of this class of articles. The tie may be readily handled without injury to itself or to the hands of the workman, it may be packed in bulk without liability to entanglement with others, and as it may be manufactured without any waste whatever from galvanized wire its entire surface is protected from oxidation, thus rendering it durable and moisture-proof as contrasted with sheet-metal ties wherein the cut or punched edges of the metal are exposed.

The tie may be made of various sizes or gage of wire to suit the conditions of use, and the loops may be made of the form shown or of V shape or of any other suitable construction, and other changes or modifications may be made by the skilled mechanic within the scope of the following claims.

What I claim is—

1. A wall-tie for binding courses of masonry together, consisting of a plurality of elements longitudinally corrugated, and a tying element wrapped transversely around the central meeting portions of said corruga-

tions and embracing and connecting the same together in such manner as to prevent substantial elongation of said corrugated elements, substantially as described.

5 2. In a wall-tie for binding courses of masonry together, a plurality of corrugated sections of wires placed flatwise edge to edge, and a binding-wire wrapped around the meeting portions or loops of said corrugated
10 wires and extending longitudinally from one

wrapping-point to another, and so connecting said corrugated wires together as to prevent substantial elongation thereof; substantially as described.

In testimony whereof I affix my signature 15
in presence of two witnesses.

PETER J. SHRUM.

Witnesses:

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