April 23, 1968 L. P. LANCTOT 3,378,982

MASONRY WALL REINFORCING AND SPACING STRIP

Filed July 6, 1966

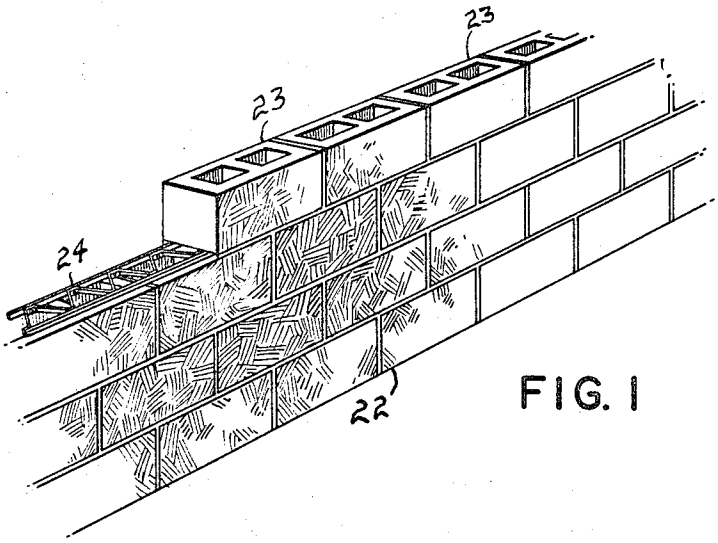



FIG. 1

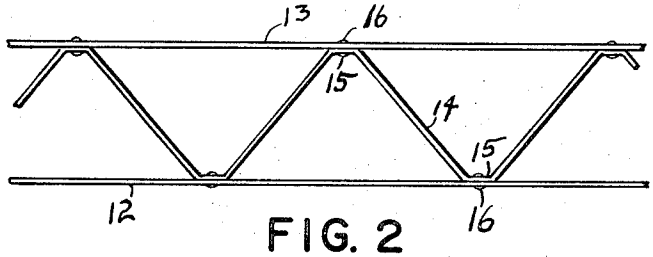



FIG. 2

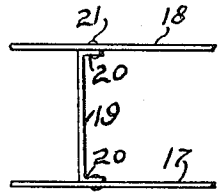



FIG. 3




FIG. 4

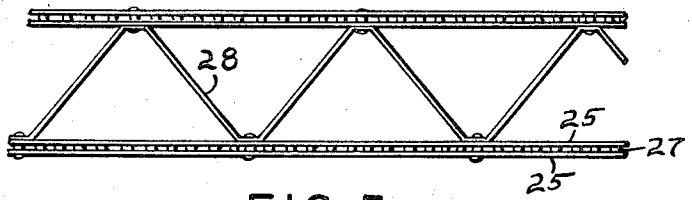



FIG. 5

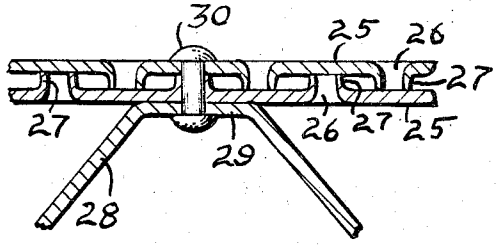



FIG. 6

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# MASONRY WALL REINFORCING AND SPACING STRIP

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## ABSTRACT OF THE DISCLOSURE

A combination spacing and reinforcing strip to be inserted in the mortar between the blocks of a masonry wall. The strip comprises spaced parallel perforated strips of metal adapted to be positioned on edge, for strength. The strips are connected by cross members. Each strip is a double length of material with the burrs of the perforations used as the spacing between the strips.

My present invention relates to the construction art and more particularly to a combination reinforcing and spacing strip for wall constructions.

The principal object of the present invention is to provide a reinforcing strip which will become intermeshed with and embedded in the mortar of a wall construction.

Another object of the present invention is to provide a reinforcing strip which will also act as a spacer for the masonry blocks.

A further object of the present invention is to provide a reinforcing and spacing strip which will intermesh with the mortar and which will have sufficient strength to properly support the masonry construction.

A further object of the present invention is to provide a combination spacing and reinforcing strip which will have a better bond with the mortar than conventional strips of this type.

With the above and other objects and advantageous features in view, my invention consists of a novel arrangement of parts, more fully disclosed in the detailed description following, in conjunction with the accompanying drawings, and more particularly defined in the appended claims.

In the drawings:

FIG. 1 is a perspective view of a portion of a wall construction having the reinforcing means of the present invention.

FIG. 2 is a top plan view of the reinforcing strip.

FIG. 3 is a fragmentary view of another form of the reinforcing strip.

FIG. 4 is a side elevation of one of the strip members.

FIG. 5 is a top plan view of another form of strip embodying my invention.

FIG. 6 is an enlarged detailed view of the strip shown in FIG. 5.

It is customary to provide reinforcing strips for cinder block and cement block wall constructions. These strips have been in the form of reinforcing rods in spaced parallel relation with and without cross members. The strips are laid between the courses of cement block and embedded in the mortar. It was found that with the shrinking of the mortar the strips became loosened. Attempts have therefore been made to provide the strips with lugs, ears and bosses to interlock with the mortar. The present invention is to provide a novel type of reinforcing strip in which the interlocking relationship with the mortar is inherent in the nature of the strip itself. Furthermore, the strip of the present invention provides considerable strength and acts as a spacer between the courses of the blocks to greatly facilitate the building of the wall.



In my copending application entitled, Masonry Spacing and Guide Member, Ser. No. 437,974, filed Mar. 8, 1965, I have illustrated and described a type of spacing device which comprises setting small segments of metal strip on edge. This provides sufficient strength for supporting the masonry blocks. The present invention utilizes the same principle in a complete masonry strip. Referring more in detail to the drawings illustrating my invention, I provide strips of metal **10** as illustrated in FIG. 4 honeycombed with openings **11** to provide a multiplicity of perforations and produce a screen-like appearance. The strips are provided in predetermined widths in order to act as spacings for the courses of masonry. Now referring to FIG. 2, the strips are assembled in vertical planes spaced parallel relation, strips **12** and **13** being connected by an intermediate angularly disposed strip **14** in a zig zag effect. The strip **14** being of the same material as the side rails **12** and **13**. At each point where the strip **14** contacts one of the strips **12** or **13** it is slightly flattened as at **15** and riveted to the side rail at **16**. If desired, or if the construction requires it, the strip may be manufactured as shown in FIG. 3. In this form the side rails **17** and **18** are similar to the **12** and **13** rails shown in FIG. 2. However, the cross members are individually attached members **19** which extend directly across at right angles and are provided at each end with inturned portions **20** riveted to the rails at **21**. These may be provided in spaced parallel relation along the length of the strip as required.

Now referring to FIG. 1, the wall **22** is manufactured from a plurality of cinder or concrete blocks **23**. The strips illustrated in FIGS. 2 or 3 is laid between the courses as shown at **24** with the side rails **12** or **13** or **17** or **18** riding the flat surfaces of the concrete blocks **23**. Where the cross members **19** are used they may be positioned to coincide with the cross portions of the concrete blocks. Now when the mortar is laid on the blocks, the mortar will intermesh with the material of the strips **12**, **13** and cross pieces **14** because of the openings **11** therein. It is preferable that the openings **11** be in large quantities so that there is a complete intermingling of the mortar with the strips. This not only adds to the embedment of the strips in the mortar but also adds to the strength of the strips. Furthermore, in the manner set forth in my copending application hereinabove referred to, the strips act as spacers and prevent the mortar from being squeezed from position by the weight of the superimposed block.

As has been hereinabove described, the strips **10** utilized in the form shown in FIGS. 1 to 4 inclusive must be heavily perforated in accordance with the present invention. It may be found that in larger constructions using large heavy blocks, that the spaces illustrated in FIG. 2 are not strong enough to support the blocks. In such cases the form shown in FIGS. 5 and 6 may be utilized. In this form, the strips of material **25** are provided with the perforations **26** which are punched in the material with a die which leaves an extruded burr **27** at each opening. Now each side rail in spaced parallel position is composed of a pair of strips **25** laid against each other with the burrs facing inwardly to form a spacer for the strips as shown in FIG. 5. The cross member **28** may be a single strip and may be in the form shown in FIGS. 2 or 3 or may be doubled if necessary. The spacer **28** is also provided with the flattened portion **29** as illustrated in FIG. 2 and the rivet **30** is designed to go through both wall portions as shown in FIG. 6 to hold the strips together. Thus, in the form shown in FIGS. 5 and 6 the side walls each comprises spaced parallel strips of the type shown in

FIG. 4 but held in spaced relation by the sharp burrs **27** extending towards each other.

The form illustrated in FIGS. 5 and 6 besides having the additional double strength, also has the additional spacing so that the mortar will enter the spaces between the side rails and further embed the reinforcing strip in the mortar. The width of the strips **10** and the spacing between the spaced parallel ribs can of course be altered to suit the different requirements. Brick walls requiring narrow strips with narrow spacing and large concrete block requiring heavy strips and heavier larger wider spacing.

Now the strips of the present invention are therefore designed to provide a conventional type of masonry wall reinforcing strip which is designed to be readily embedded in the mortar to be strengthened and to become part thereof and to also act as a correct spacer for the mastonry wall. The construction is easy and economical to manufacture and assemble. Other advantages of the present invention will be readily apparent to a person skilled in the art.

I claim:

**1.** A masonry reinforcing and spacing strip comprising a pair of spaced parallel strips having a width equal to the desired spacing, said strips being perforated with a plurality of openings, each of said strips being in a vertical plane, and a connecting strip extending between said spaced strips, said connecting strip being of the same width and constructons as said spaced strips, said connecting strip being in a vertical plane and being rigidly attached to said spaced strips at spaced intervals, said spaced parallel strips each comprising a double strip of perforated material and said spaced parallel strips being perforated with extruded burrs, said double strips being disposed with the burrs facing each other to provide a spacing for each double wall.

**2.** A masonry strip as in claim **1**, wherein said connecting strip has a zig-zag shape, the points on said zig-zag being flattened, and a rivet extending through each flattened portion and adjacent strip to lock said connecting strip to said spaced parallel strips.

**3.** A masonry strip as in claim **1**, wherein said connecting strip comprises a plurality of spaced connecting members extending at right angles between said spaced parallel strips, each member having inturned ends and being riveted to the parallel strips through said inturned ends.

**4.** A masonry strip as in claim **2**, wherein said rivets extend through said double strips to lock said strips to each other.




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