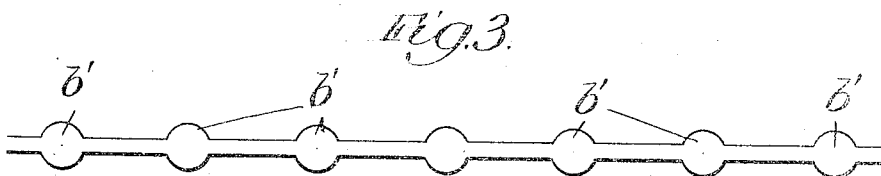
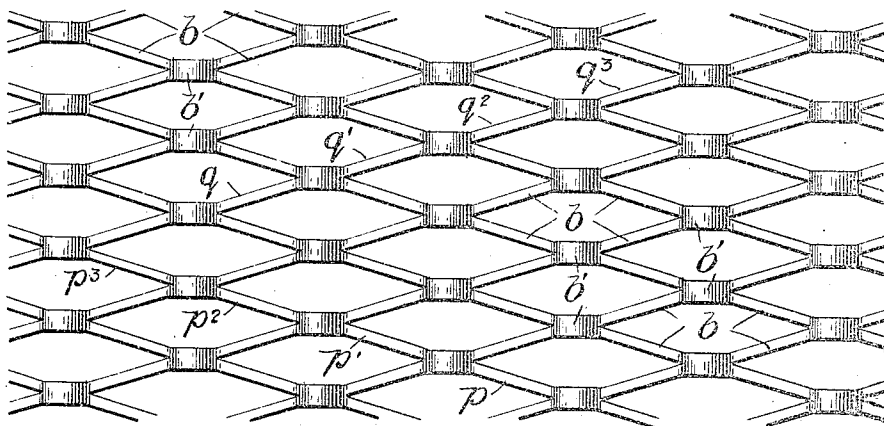
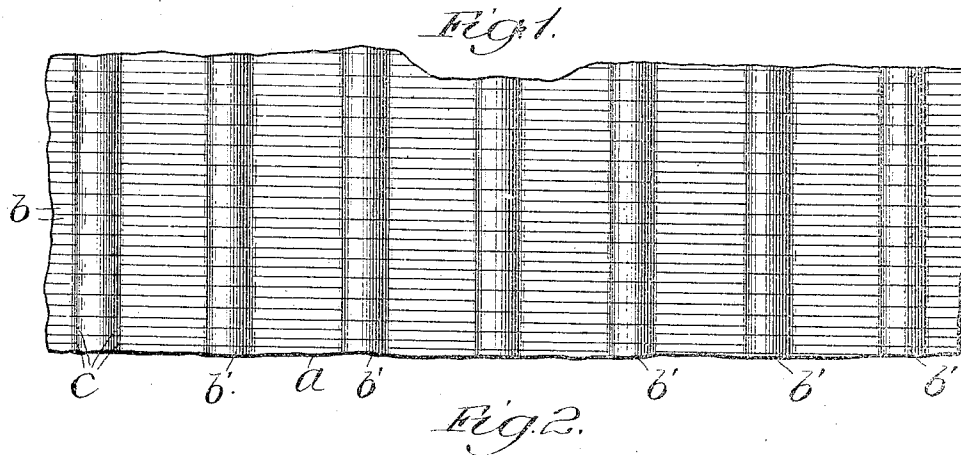


No. 891,822.

PATENTED JUNE 30, 1908.

F. A. DELANO.
METHOD OF MAKING EXPANDED SHEET METAL.
APPLICATION FILED JULY 19, 1906.



Witnesses.
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UNITED STATES PATENT OFFICE.

FREDERIC A. DELANO, OF CHICAGO, ILLINOIS.

METHOD OF MAKING EXPANDED SHEET METAL.

No. 891,822.

Specification of Letters Patent.

Patented June 30, 1908.

Application filed July 19, 1906. Serial No. 326,662.

To all whom it may concern:

Be it known that I, FREDERIC A. DELANO, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Methods of Making Expanded Sheet Metal, of which the following is a specification.

My invention relates to a new and improved method of making expanded metal sheet; and has for its object to impart to the finished product superior tensile strength.

To this end my invention consists in the details and in the process hereinafter described and claimed.

In the accompanying drawings—Figure 1 is a plan view of a sheet of metal showing the method of slitting the sheet prior to expanding. Fig. 2 is a plan view of the finished product. Fig. 3 is an edge view of the sheet shown in Fig. 2.

Expanded sheet metal has hitherto been made of metal of uniform thickness. It is desirable that expanded metal sheet be so formed as to provide additional strength where greater tensile strength is required, as in fencing, or when used as a reinforcement in concrete construction.

In carrying out my invention, therefore, I provide a sheet or plate of metal formed with a series of parallel ribs b' extending across the sheet at regular intervals. I then slit the sheet, each alternate slit c extending between two of the parallel reinforcements or ribs, as they may be termed, and across or through the intermediate rib, forming strands b , as will be readily understood. Thus between the adjacent strands is formed, by a portion of the ribs b' , a thickened reinforcement. The sheet is then expanded in the usual manner, resulting in the sheet of expanded metal shown in Fig. 2. It will be noted that successive strands b are grouped in a plurality of linear series, and that there are two intersecting sets of such series, all the series of one set lying in parallel directions. Thus the strands p , p' , p'' , and p^3 belong to one series, while the strands q , q' , q'' and q^3 belong

to another series, and moreover these two sample series belong respectively to the two sets just referred to. Wherever one strand joins another there is an enlargement or bead b' . The expanded metal may in this way possess superior strength, and is especially useful for this reason in reinforced concrete construction. The thickened joint portions are also less liable to rust out when the sheet is used for fencing purposes.

It will be understood that the shape of the ribs or reinforcing portions b' is immaterial. It may be made of any desired size also.

I claim:

1. The method of making expanded metal which consists in forming a sheet with parallel ribs then slitting the sheet transversely of said ribs, and then expanding the sheet.

2. The method of making expanded metal which consists in forming a sheet having places of greater thickness than the remainder of the sheet, then slitting the sheet across said thickened places, and then expanding the sheet.

3. The method of making expanded metal which consists in forming a sheet having thickened places, then slitting the sheet into strands but leaving the thickened places as beads at the junction points of the strands, and then expanding the sheet.

4. The method of making expanded metal, which consists in forming a sheet with parallel ribs, cutting slits in the sheet so that each slit shall extend between two ribs across an intermediate rib, and then expanding the sheet.

5. The method of making expanded metal which consists in forming a sheet with parallel thickened ribs, cutting slits across each of the several ribs, the slits through alternate ribs aligning and being staggered with respect to the slits in the intermediate rib, and then expanding the slitted sheet.

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