C. JOSEPH.

BOLT ANCHOR BLANK.

APPLICATION FILED DEC. 4, 1914.

1,166,525. Patented Jan. 4, 1916.

Fig. 1.

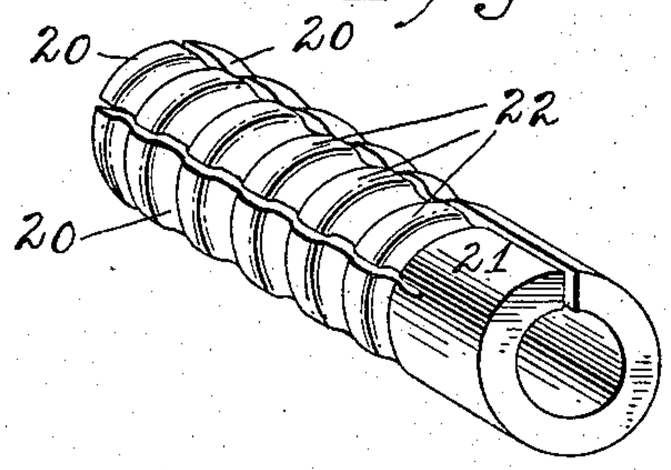

Fig. 2.

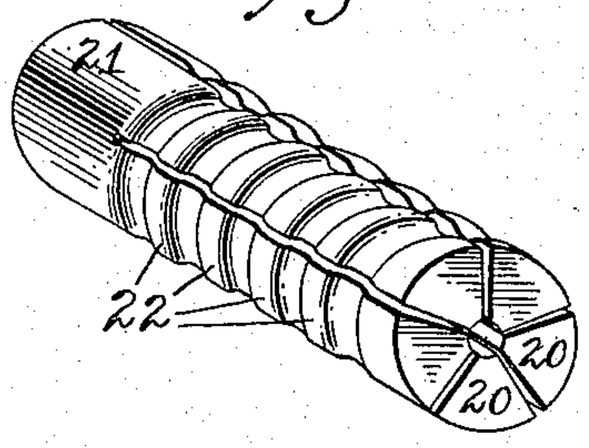

Fig. 3.

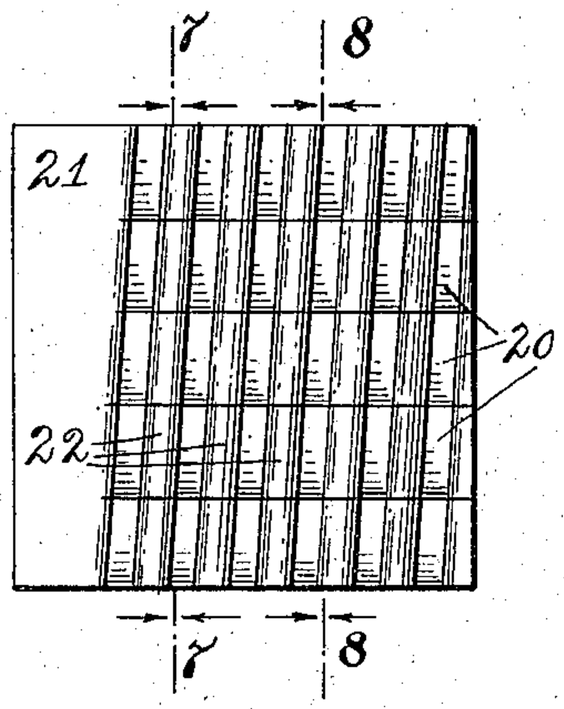

Fig. 4.

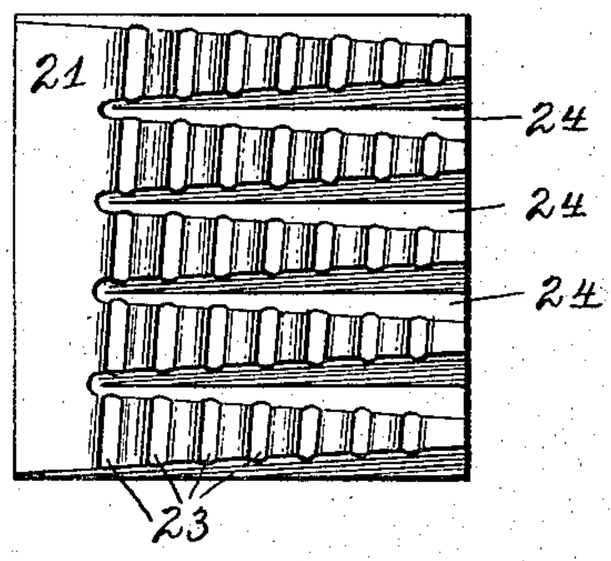

Fig. 5.

Fig. 6.

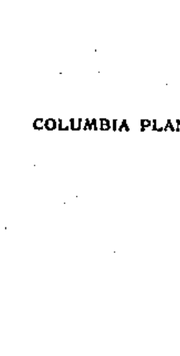

Fig. 7.

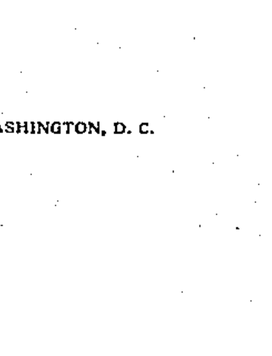

Fig. 8.

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BOLT-ANCHOR BLANK.

1,166,525. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed December 4, 1914. Serial No. 875,408.

To all whom it may concern:

Be it known that I, CARL JOSEPH, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Bolt-Anchor Blanks, of which the following is a specification.

This invention relates to a blank out of which is to be formed a bolt anchor, and its novelty consists in the construction and adaptation of the parts as will be more fully hereinafter pointed out.

Bolt anchors of various forms are in common use. A preferred form consists of a plurality of sections arranged around a common center and the walls of which are either of uniform thickness or progressively increase in thickness from the outer to the inner end of the device, the sections being united at the outer end by an annulus common to all of them. Such anchors have sometimes been provided with corrugations or other means external or internal to promote the grip of the anchor within the encircling walls of the orifice in which it is inserted, or to promote a better engagement with the bolt secured within the anchor. Such anchors have also usually been made by being cast in their final tubular form, necessitating the employment of cores and rendering it difficult to mold perfectly any desired internal corrugation or configuration.

The purpose of my invention is to cast or mold, roll or otherwise produce blanks in the form of substantially flat metal plates, or in the form of a continuous flat metal strip, each blank comprising such a number of sections that when they are assembled around a common center the desired tubular body is formed. If made in continuous strips bolt anchors of different final diameters may be made by using a different number of sections thus effecting a great economy in manufacture.

In the drawings, Figure 1 is a perspective view of a preferred form of bolt anchor to be made out of the described blank, looking at the same from the front end; Fig. 2 is a similar perspective view of the same device looking at the same from the rear end; Fig. 3 is a view of that surface of the blank which is to form the external surface of the bolt anchor; Fig. 4 is a view similar to Fig. 3 but of the reverse side of the blank; Fig. 5 is an end view of that portion of the blank which is to form the outer edge of the anchor; and Fig. 6 is a similar view of the reverse end of the blank; Figs. 7 and 8 are transverse sections, respectively, on the planes of the lines 7—7 and 8—8 in Fig. 3.

In the drawings 20, 20 indicate the sections of which the blank is mainly composed. They are of any convenient number having regard to the diameter of the anchor to be formed therefrom. They are all united at one end of the blank to a transverse strip or band 21, common to all of them and with which they are made integral. Both the strip 21 and the sections 20 can be made of soft flexible metal if desired. Each section is substantially trapezoid in cross section (as seen best in Figs. 7 and 8) and each gradually increases in thickness from the outer common strip 21 toward the opposite end. Each section is provided on one side which I call the exterior or external side (because when the anchor is formed it constitutes the exterior thereof) with transverse corrugations indicated at 22, the corrugations of the adjacent sections being so arranged that when the sections are assembled together they constitute a substantially continuous spiral groove around the outside of the anchor. On its opposite side, each section is likewise provided with corrugations indicated at 23 so arranged that when assembled they form an internal spiral groove or thread.

Looking at the blank from another point of view it will be noted that the surface of all the sections on the external side, together with the surface of the common strip is flat or plane, except as it may be interrupted by the corrugations. And similarly the surface of all the sections on the internal side together with the surface of the common strip is also flat except as interrupted by wedge shaped recesses 24 between each pair of sections, and as a whole the blank has the shape of a broad thin wedge tapering toward the common strip which is at the narrowest end.

In order to form a bolt anchor out of this blank, it is merely rolled around a tool or form into a tubular form as shown in Figs. 1 and 2.

As may be readily understood the device is simple and easy to make and is consequently very cheaply constructed. The blanks may be packed flat for economy and ease in transportation.

What I claim is:

1. A blank adapted to be formed into a bolt anchor constituting a substantially flat slab comprising a plurality of sections, each transversely corrugated on both sides and each substantially trapezoidal in cross section, all united at one end to a common transverse band and which band is not corrugated.

2. A blank adapted to be formed into a bolt anchor constituting a substantially flat slab comprising a plurality of sections, each transversely corrugated on both sides and each substantially trapezoidal in cross section, all united at one end to a common transverse band, whereby when the sections are curved around a cylinder they form a tubular body spirally corrugated, internally and externally.

3. A blank adapted to be formed into a bolt anchor constituting a substantially flat slab comprising a plurality of sections, each transversely corrugated on both sides and each substantially trapezoidal in cross section and decreasing in cross sectional area from one end to the other, all united at their smaller ends by a common transverse strip.

4. A blank adapted to be formed into a bolt anchor constituting a substantially flat slab comprising a plurality of sections, each transversely corrugated on both sides, and each substantially trapezoidal in cross section, the surface of the corrugations on each side lying substantially in a plane, and all of the sections being united at one end by a transverse integral strip.

5. A blank out of which to form a bolt anchor comprising a plurality of sections, each transversely corrugated on both sides, and each substantially trapezoidal in cross section and decreasing in cross sectional area from one end to the other, all united at their smaller ends by a common transverse strip, the surfaces of one side of the sections lying substantially in one plane and the surfaces of the opposite side of the sections lying substantially in another plane.

6. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section.

7. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section, the sections gradually increasing in cross sectional area outward from the common uniting strip.

8. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section, each section being substantially trapezoidal in cross section.

9. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section, each section being substantially trapezoidal in cross section, the sections gradually increasing in cross sectional area outward from the common uniting strip.

10. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section, each section being obliquely corrugated on both sides.

11. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section, the sections gradually increasing in cross sectional area outward from the common uniting strip, each section being obliquely corrugated on both sides.

12. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section,

each section being substantially trapezoidal in cross section, each section being obliquely corrugated on both sides.

13. A blank for a bolt anchor of soft flexible metal constituting a substantially flat slab comprising a plurality of strips, sufficient in number when assembled around a common longitudinal center to form a tubular body, all the sections being united by a common strip made integral therewith and arranged substantially at a right angle to the longitudinal medial line of each section, each section being substantially trapezoidal in cross section, the sections gradually increasing in cross sectional area outward from the common uniting strip, each section being obliquely corrugated on both sides.

14. A blank adapted to be formed into a bolt anchor comprising a substantially flat slab slightly thicker at one end than the other, one side of which is provided with wedge shaped recesses deeper at the thicker end and not quite extending to the thinner end.

15. A blank adapted to be formed into a bolt anchor comprising a substantially flat slab slightly thicker at one end than the other, one side of which is provided with wedge shaped recesses deeper at the thicker end and not quite extending to the thinner end, each side of the slab being transversely corrugated.

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

CARL JOSEPH.

Witnesses:
MARY H. LEWIS,
STEPHEN S. NEWTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."