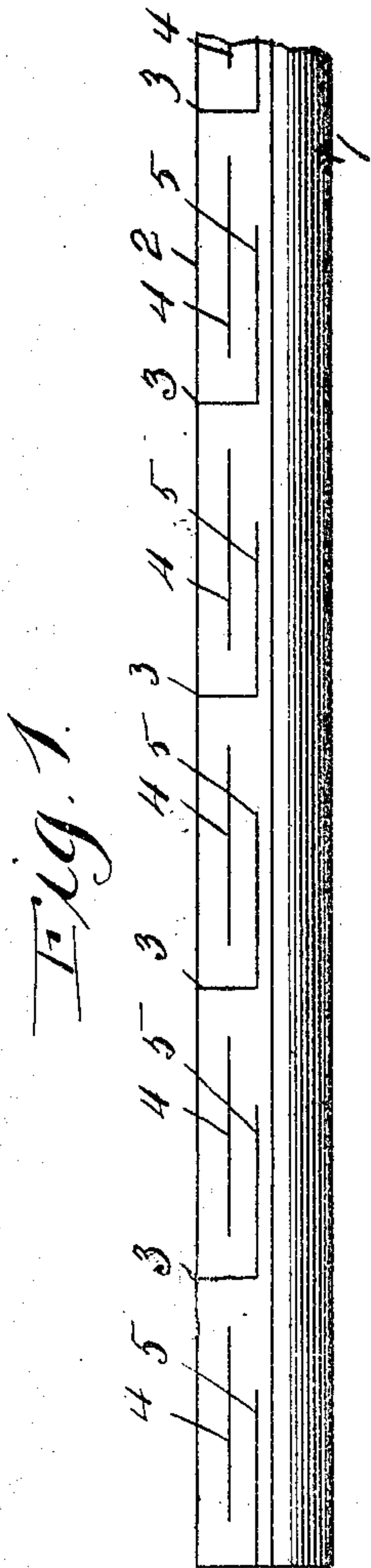


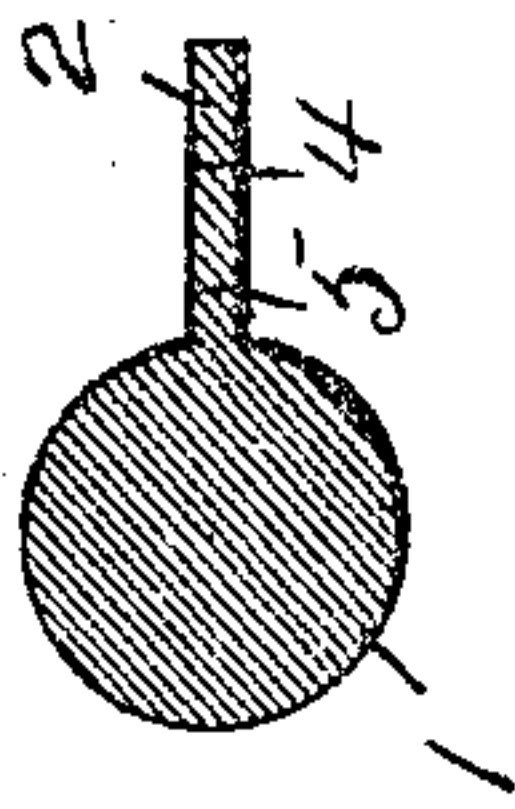
No. 871,504.

PATENTED NOV. 19, 1907.

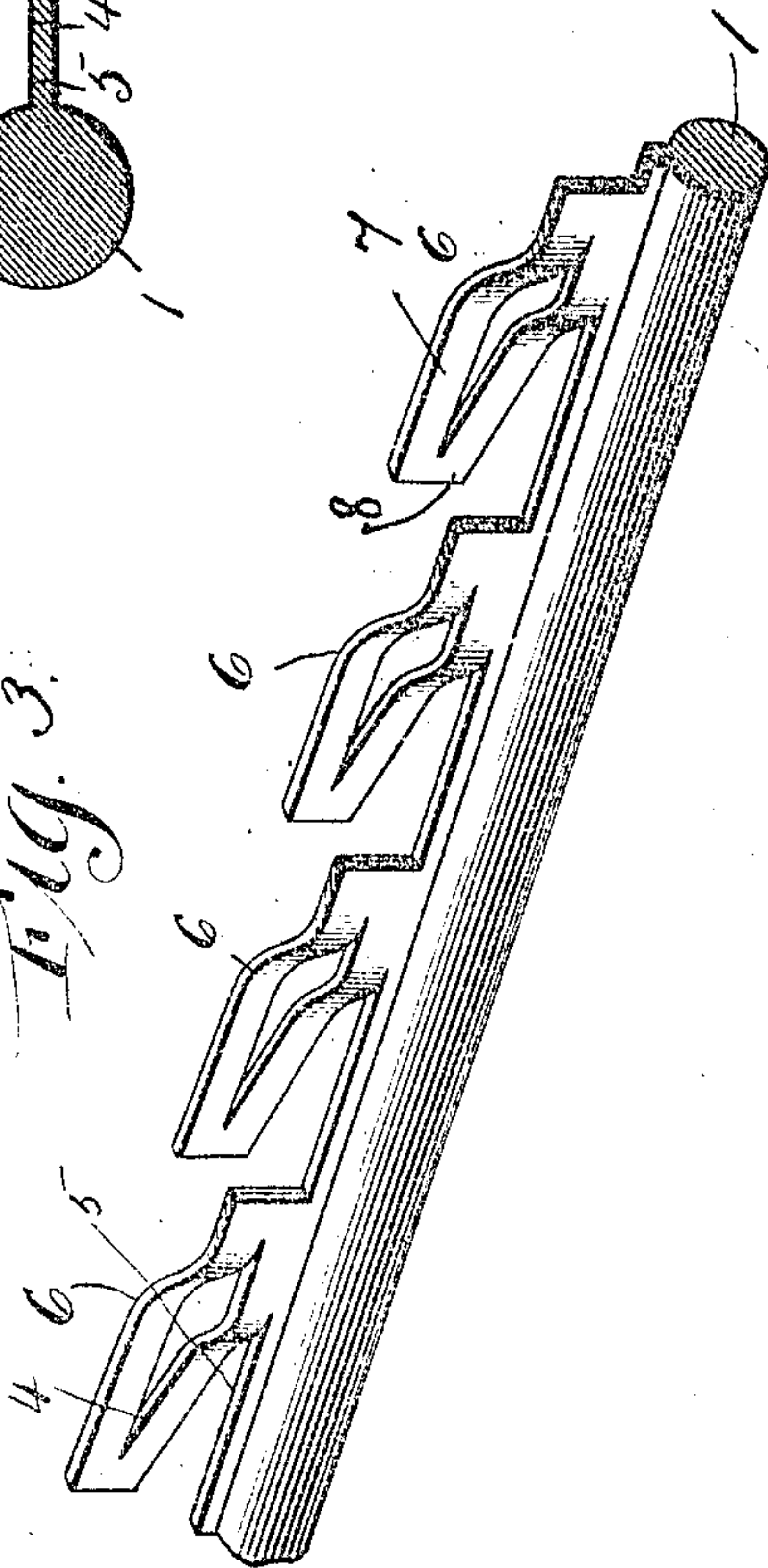
M. HAUPT.  
REINFORCING BAR.  
APPLICATION FILED JAN. 18, 1907.



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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BY

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# UNITED STATES PATENT OFFICE.

MAX HAUPT, OF HOMESTEAD, PENNSYLVANIA.

## REINFORCING-BAR.

No. 871,504.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed January 18, 1907. Serial No. 352,890.

*To all whom it may concern:*

Be it known that I, MAX HAUPT, a citizen of the United States of America, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Reinforcing-Bars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to reinforcing bars for concrete construction, and its primary object is to provide a device of this character of simple and inexpensive construction which will effectively serve the purpose of strengthening concrete structures.

A further object of the invention is to provide a reinforcing bar having integral shearing arms adapted to be embedded in the concrete said arms being formed by slitting and bending up portions of a flange projecting from the beam or body portion of the bar.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawing which forms a part of this specification, and its novel features will be defined in the appended claims.

In the drawing, Figure 1 is a plan view of a reinforcing bar embodying the invention showing its projecting flange slitted preparatory to being bent, Fig. 2 is a transverse section of the same, and Fig. 3 is a view in perspective of the bar showing its shearing arms bent up to complete the device.

The invention comprises a main tension bar having integral shearing arms of specific shape, and which are formed from a flat flange that is integral with the main tension bar, being rolled therewith when the said tension bar is rolled.

1 designates the main tension bar, herein illustrated as cylindrical in cross section, but the same may be of any other desired shape. Integral with one side of said main tension bar, and projecting laterally therefrom is a flange 2, which extends longitudinally of the bar and is of a sufficient width that shearing arms may be formed from the flange, in the present illustration this flange being shown of approximately a width equal to the diameter of the main tension bar 1. The said flange 2 is provided at intervals throughout its length with angular slits, the shorter cut 3 of which extends from the outer edge of the flange into the same for a distance less than the width of the said flange, and the longer

cut 5 of which slits extends longitudinally of the flange for a distance approximately half the distance between each two adjacent cuts 3. The flange 3 is also provided with longitudinal slits 4, one of which is made in the flange between each two adjacent transverse cuts 3. The free end of the material produced by the angular slits 3, 5, is bent laterally of the body of the flange so as to lie in a different plane from the body of the flange and the longitudinal axis of the tension bar 1. This laterally deflected material together with the remaining portions of the flange constitute the shearing arms 6, which shearing arms by reason of their being provided with the slits 4 are deflected or bent laterally in opposite directions to form an opening within the shearing arms as clearly seen in Fig. 3 of the drawings so that the concrete can interlock between the portions of the shearing arms and thus obtain a more secure and effective anchoring of the bar.

It is to be observed that only those portions of the flange which are bounded by the angular slits formed by the cuts 3 and 5 are laterally projected from the flange, and the shearing arms thus produced from the flange lie partially in a different plane to the longitudinal axis of the tension bar, and partly in a plane with said longitudinal axis. The longitudinal slitting of the shearing arms and the lateral deflecting of the portions at opposite sides of the slits so as to form an opening within the shearing arms permits of the concrete firmly interlocking with the arms and results in effective anchoring of the arm within the concrete beam or other structure.

What I claim and desire to secure by Letters Patent, is:—

1. A reinforcing bar for concrete construction, comprising a main tension bar having an integral laterally-projecting longitudinal flange slitted transversely for a portion of its width and also slitted longitudinally for a portion of its length at intervals throughout its length and having the portions bounded by said slits bent laterally out of plane with the remainder of the web to form shearing arms, said laterally bent portions of the flange being slitted longitudinally, the said slits terminating short of the ends of the shearing arms, and having the material on each side of said slits laterally deflected to form an opening within the shearing arm.

2. A reinforcing bar for concrete construction, comprising a main tension bar having an integral laterally-projecting longitudinal flange slitted transversely for a portion of its width and also slitted longitudinally for a portion of its length at intervals throughout its length and having the portions bounded by said slits bent laterally out of plane with the remainder of the web to form shearing arms, said laterally bent portions of the flange being slitted longitudinally, the said slits terminating short of the ends of the shearing arms, and having the material on each side of said slits laterally deflected to form an opening within the shearing arm.

tion, comprising a main tension bar and a laterally-projecting integral flange angularly-slitted at intervals throughout its length, the material bounded by said angular slits being bent laterally out of plane with the remainder of the flange to form shearing arms, said shearing arms slitted longitudinally intermediate their ends and having the portions

on opposite side of the slits deflected laterally in opposite directions.

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

MAX HAUPT.

Witnesses:

MAX H. SROLOVITZ,  
F. O. McCLEARY.