No. 867,090. PATENTED SEPT. 24, 1907.

F. C. WOLF.

CONCRETE BAR.

APPLICATION FILED APR. 12, 1907.

Fig. 1.

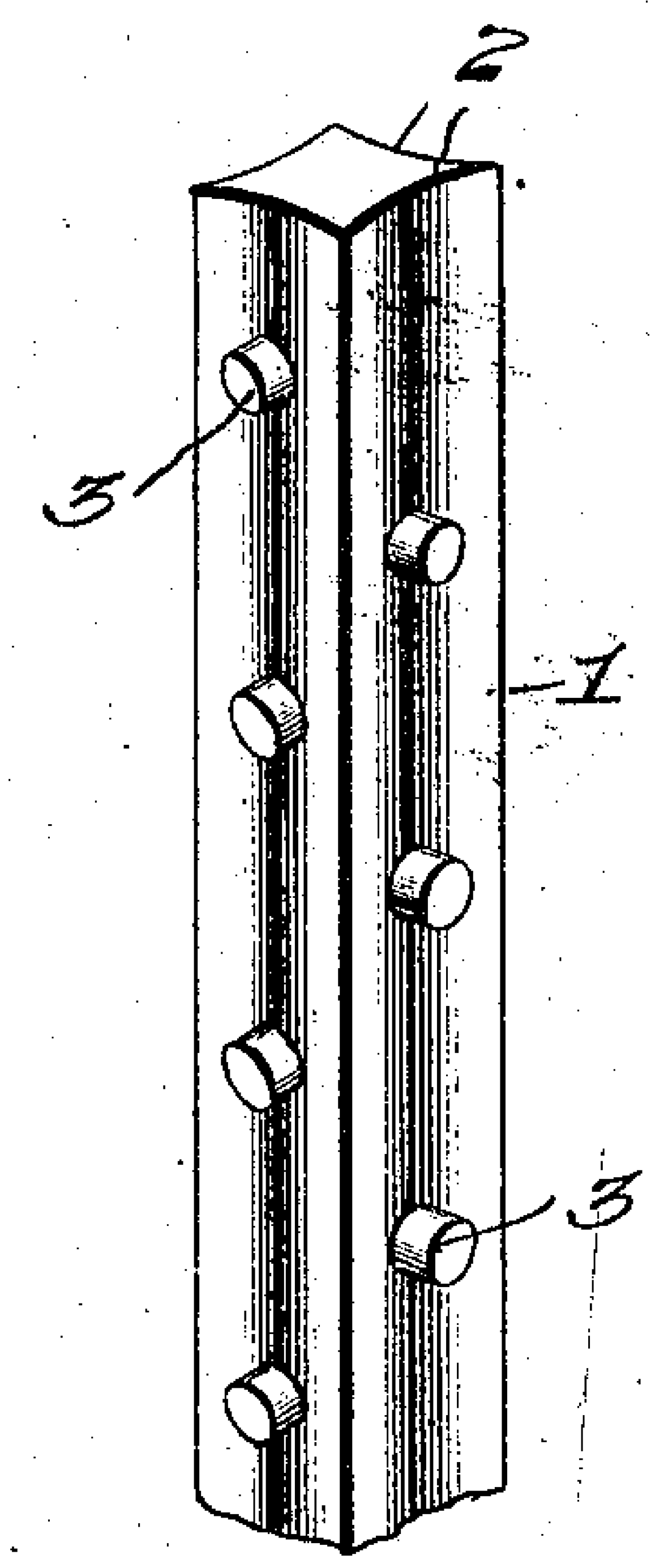


Fig. 5.

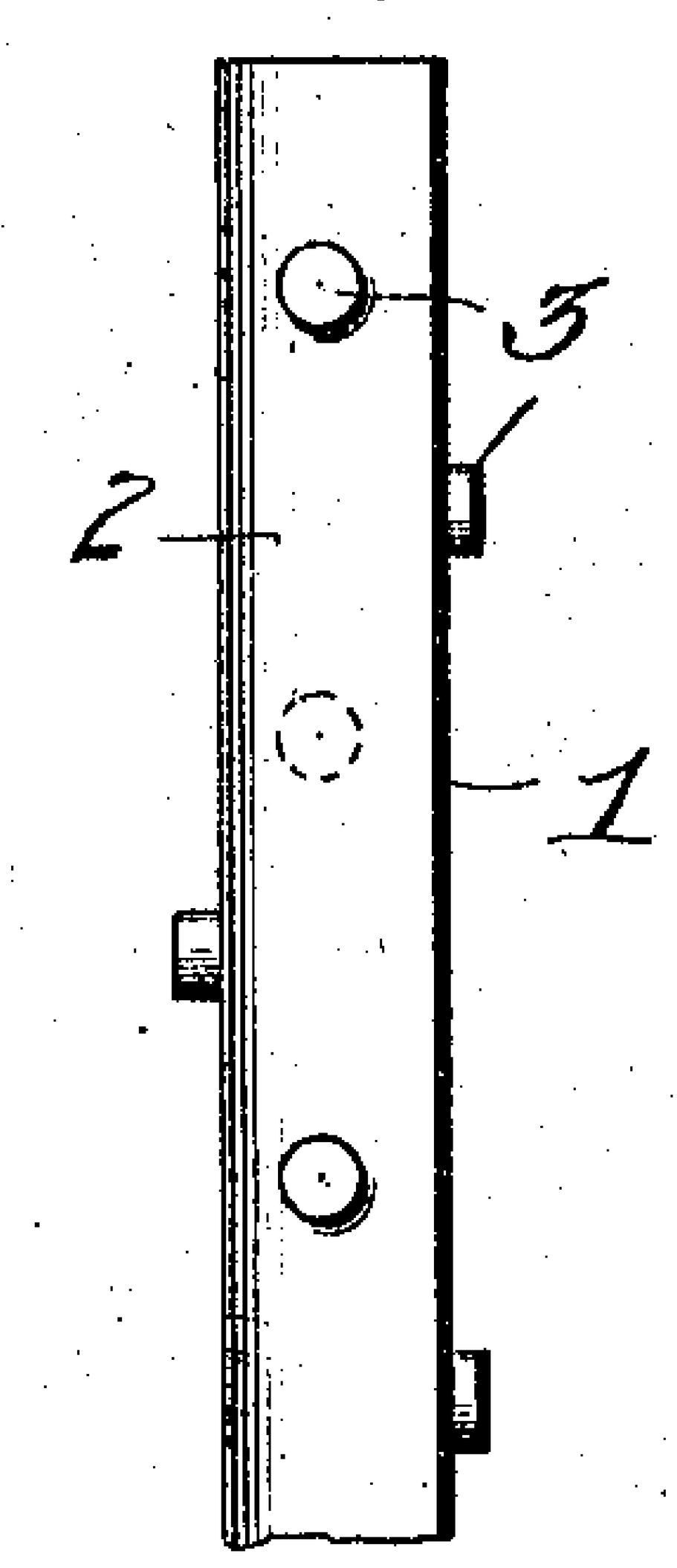


Fig. 2.

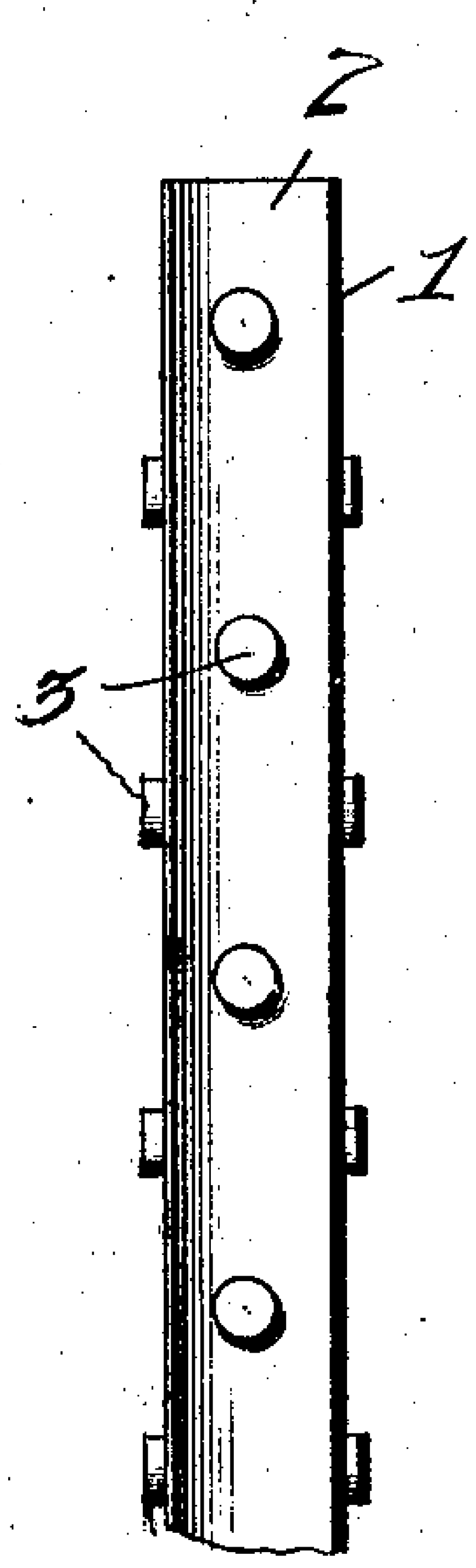
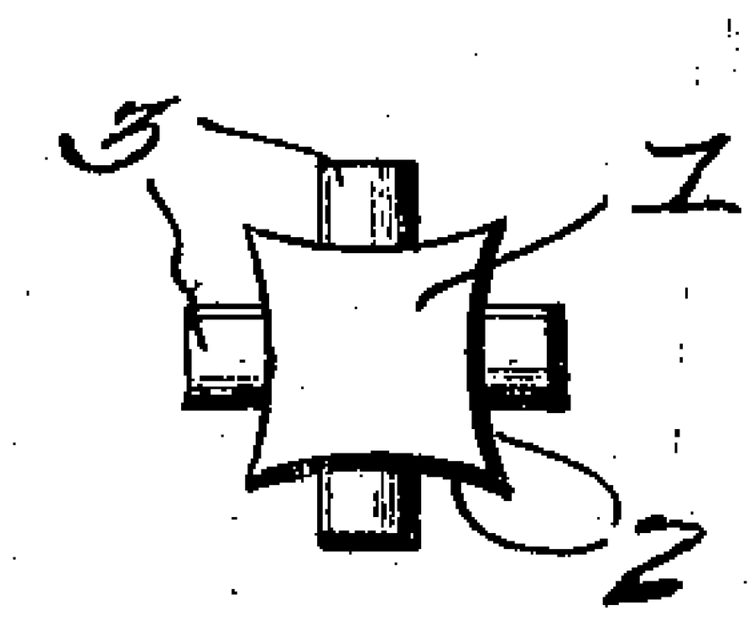


Fig. 3.



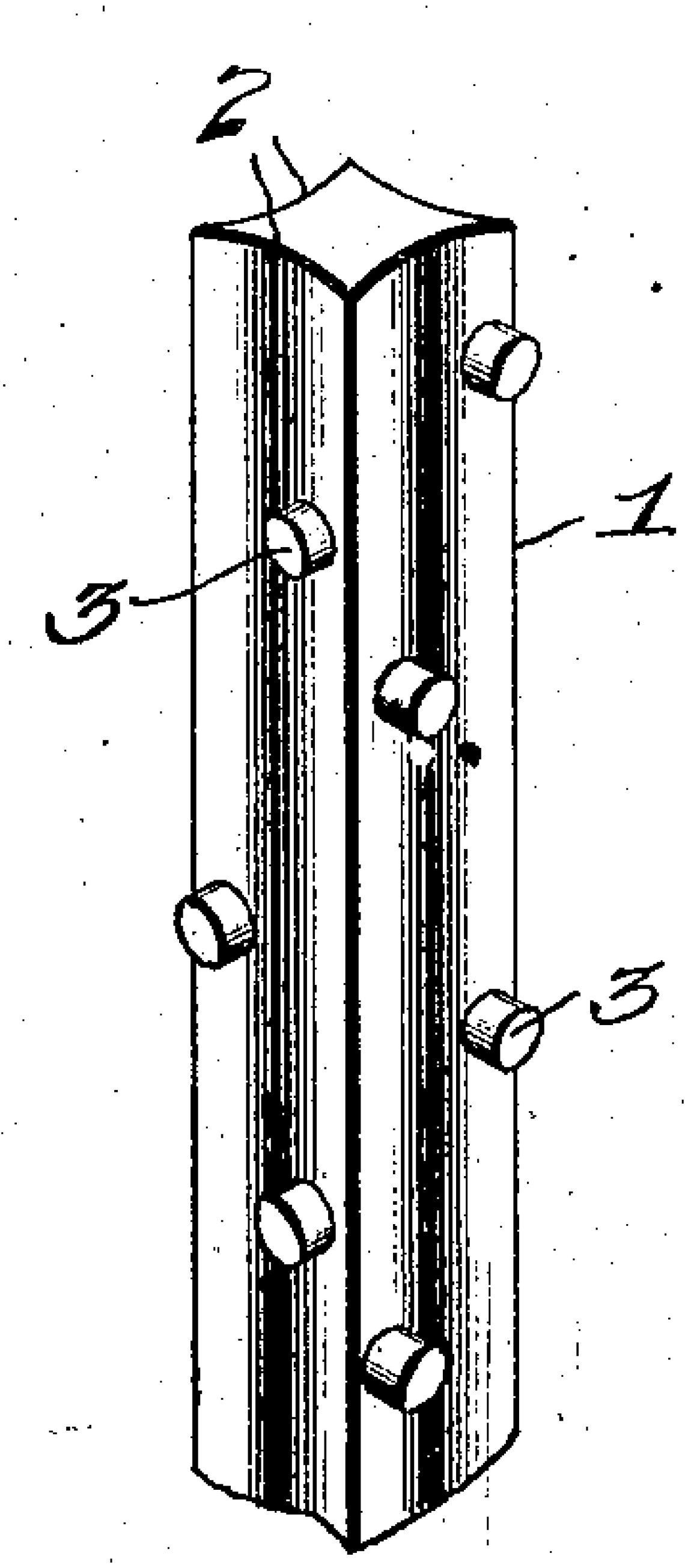


Fig. 4.

Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK C. WOLF, OF YOUNGSTOWN, OHIO.

CONCRETE BAR.

No. 867,090. Specification of Letters Patent. Patented Sept. 24, 1907.

Application filed April 12, 1907. Serial No. 367,794.

To all whom it may concern:

Be it known that I, FREDERICK C. WOLF, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Concrete Bars, of which the following is a specification.

This invention relates to an improved design of reinforcing unit or bar for concrete structures, which types of units are commonly termed concrete bars.

To this end the invention has in view the formation of a rolled bar section embodying a novel and practical shape and an effective form and arrangement of binding elements which insure a strong and substantial binding for the concrete material, while at the same time securing a maximum reinforcement of the concrete structure whether in the form of a column, wall or other body.

The essential features of the invention may be susceptible to some structural change or modification without departing from the scope thereof, but a preferred embodiment of the invention is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a reinforcing unit embodying the present invention. Fig. 2 is a side view thereof. Fig. 3 is a cross sectional view of the same. Fig. 4 is a perspective view of a modification. Fig. 5 is an elevation of a section of the bar showing a further modification in the arrangement of the teats.

Like references designate corresponding parts in the several figures of the drawings.

The unit contemplated by the present invention primarily consists of a bar section of any desired length and cross sectional area and designed to be shaped into the formation claimed herein by one passage of the said bar section through the rolls. These rolls are necessarily correspondingly designed as will be well understood by those familiar with the art, of metal rolling. According to the present invention, the said rolled bar section is preferably of a cross-sectional angular form, though the corners thereof could be turned off as desired, without affecting the functions of the unit. Furthermore, the rolled bar section is provided with longitudinally fluted or channeled sides 2 producing concavities extending the full length of the bar section, and in addition to the longitudinal concavities, the bar section is provided on each side with a multiplicity of offset binding teats 3. These binding teats are formed integrally with the body of the bar during the rolling process and are preferably round lug-like protuberances projecting from the bottom of the concavity so as to present a large number of small binding elements presenting an extensive anchoring and binding area for the concrete material, entirely aside from the binding and anchoring effect of the fluted or channeled formation of the bar sides.

In Figs. 1 and 2 of the drawings the binding teats are illustrated as preserving a regular order in straight longitudinal rows upon the sides of the bar, but this may be varied, such for instance, as by staggering the teats throughout the length of the bar as suggested in Fig. 4 of the drawings without departing from the invention. Also it will be equally obvious that the concavities of the bar could be angular as well as curving without affecting the invention, and various other structural modifications resorted to, such for instance of the projections or teats, as suggested in Fig. 5 of the drawings wherein they are illustrated as preserving a spiral order lengthwise and about the bar.

I claim

1. A reinforcing unit for concrete consisting of a rolled cross-sectionally angular bar-section, each of whose sides is formed with a longitudinal concavity extending the full length and width thereof, each side being also provided with a plurality of integral binding teats of materially less width than the width of the bar-section.

2. A reinforcing unit for concrete consisting of a rolled cross-sectionally angular bar-section, each of whose sides is formed with a longitudinal concavity extending the full length and width thereof, each of said sides being further provided with a plurality of integral binding teats projecting out of and beyond the concavity and of materially less width than the width of the bar-section.

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

FRED. C. WOLF.

Witnesses:
JOSEPH F. WILLIAMS,
CHAS. M. RAMSEY.