

(No Model.)

J. T. McCORMICK.  
UNION OF TRANSVERSE METAL BARS.

No. 528,677.

Patented Nov. 6, 1894.

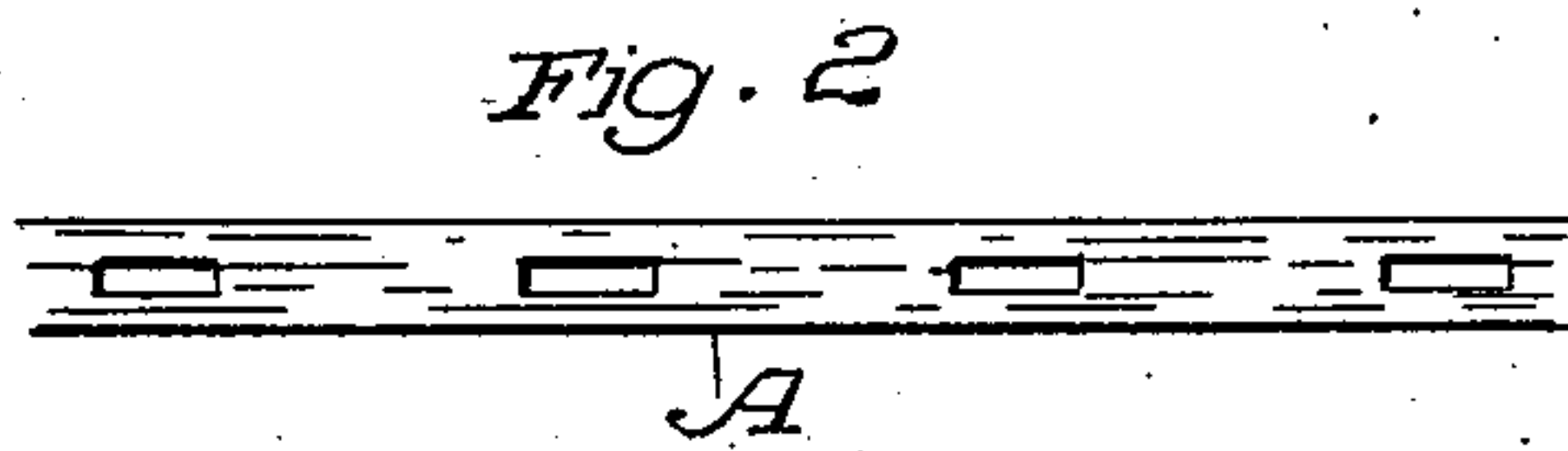
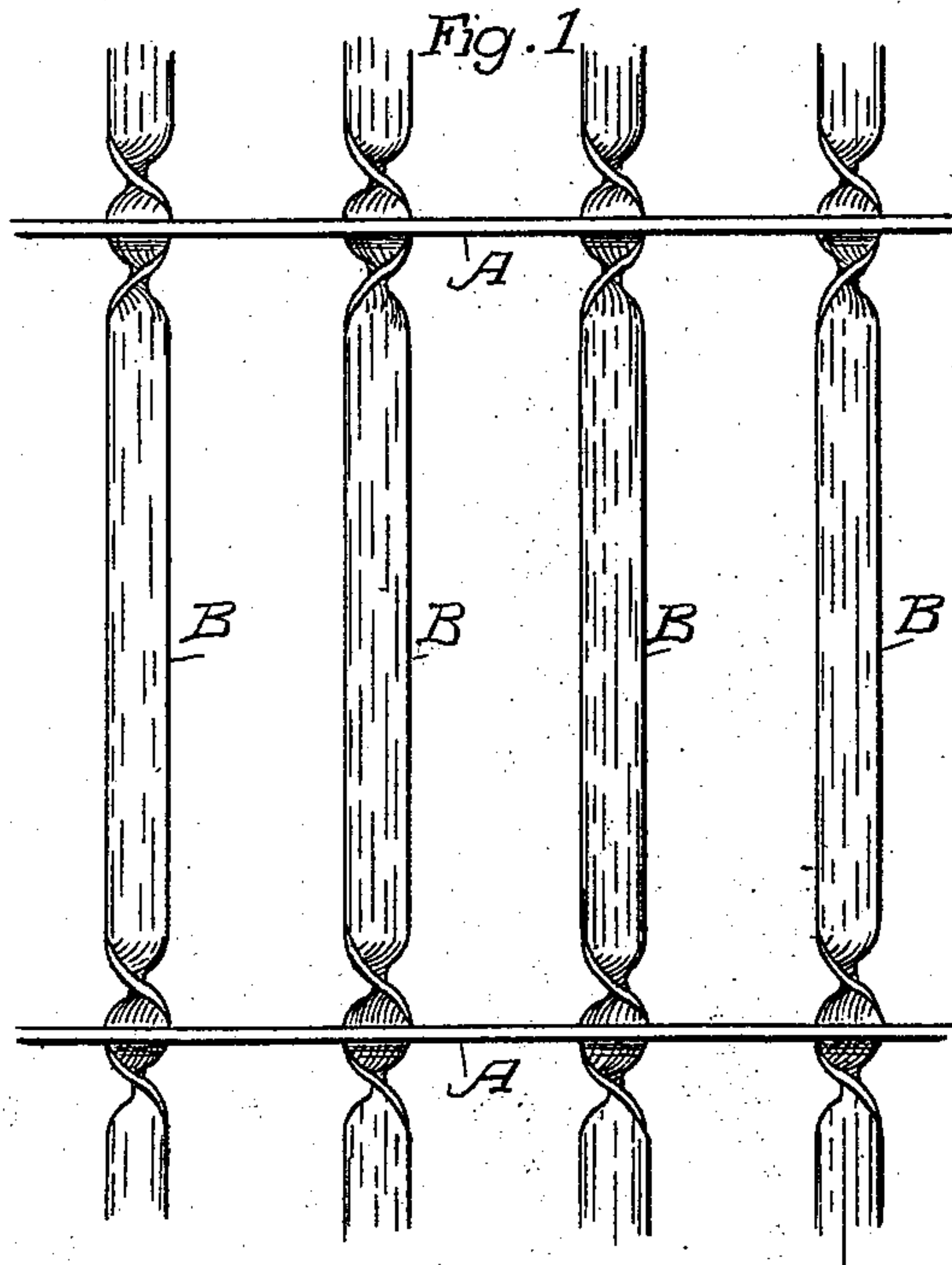
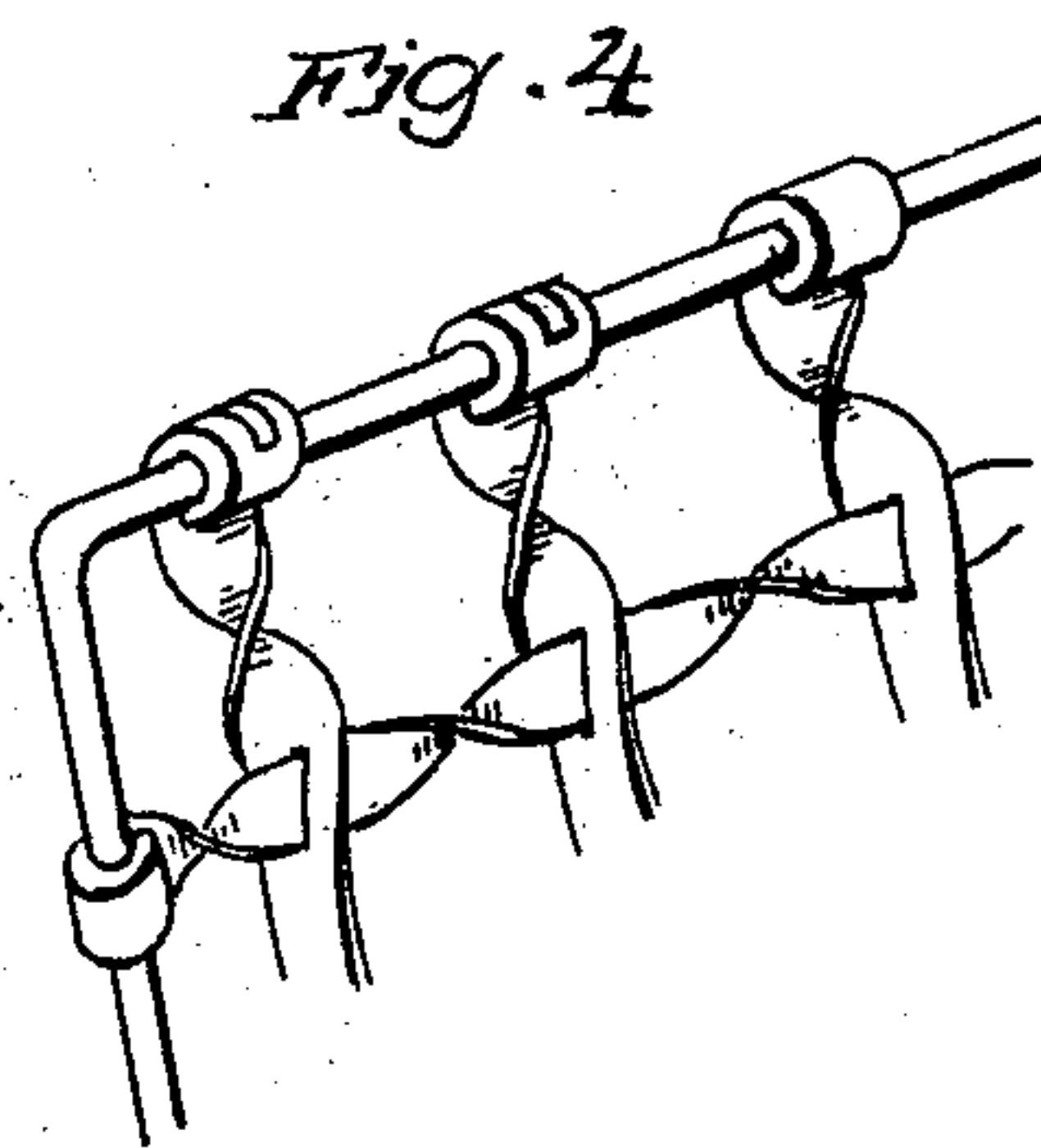
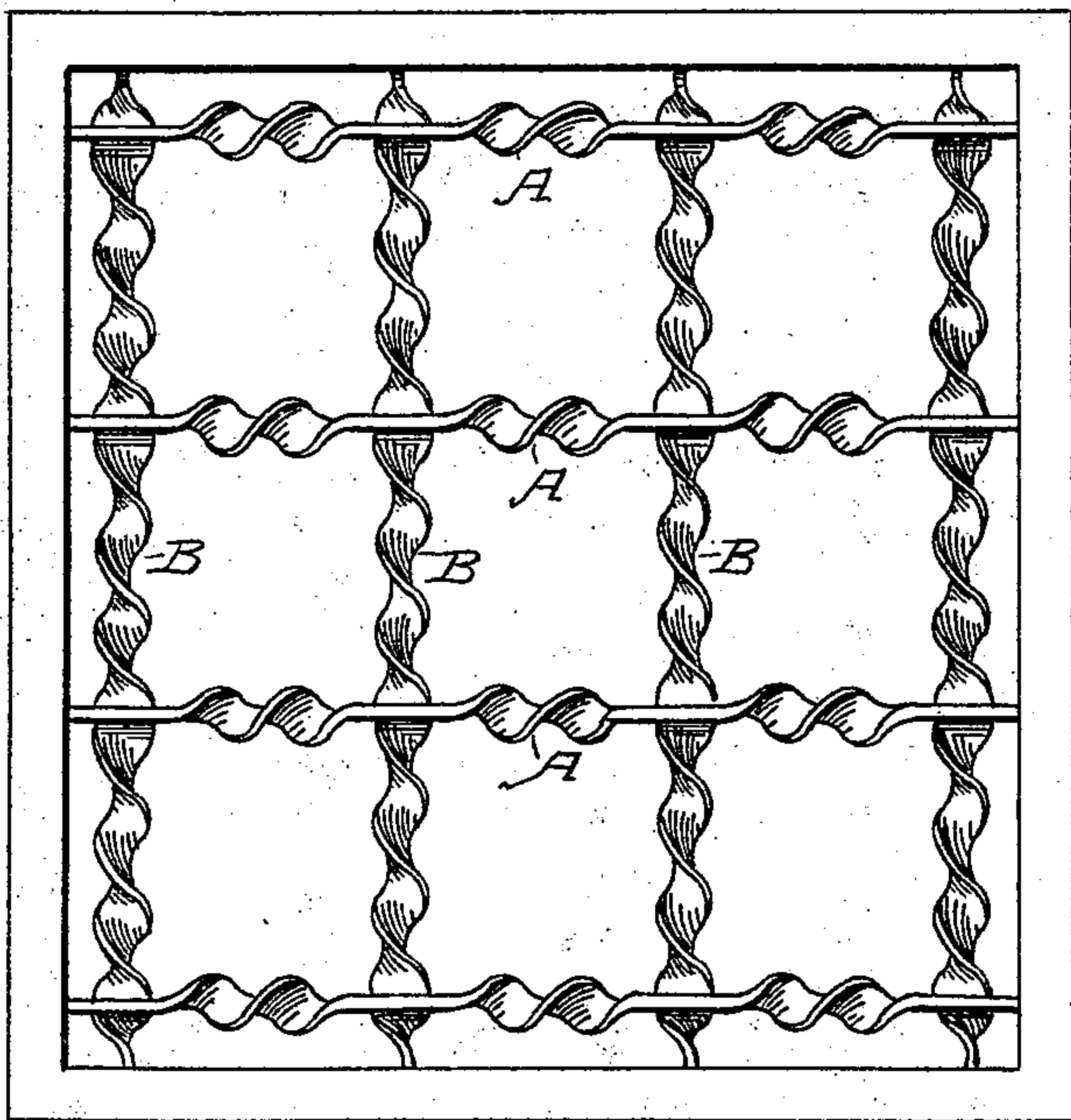


Fig. 3



Witnesses,  
J. H. Bayless

Inventor,  
John T. McCormick  
By Dewey & Co  
attys

# UNITED STATES PATENT OFFICE.

JOHN T. McCORMICK, OF SAN FRANCISCO, CALIFORNIA.

## UNION OF TRANSVERSE METAL BARS.

SPECIFICATION forming part of Letters Patent No. 528,677, dated November 6, 1894.

Application filed June 14, 1894. Serial No. 514,571. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. McCORMICK, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Uniting Transverse Metal Bars; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a means for uniting and locking together metal bars which cross each other transversely, and it consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view showing one method of uniting the bars. Fig. 2 shows the bar with the slots. Fig. 3 is another view of the same, with an exterior frame to form a mat or grating. Fig. 4 shows another form.

The object of my invention is to provide a means for rigidly uniting bars which cross each other transversely so that they may form either grills, gratings, door mats, fences or other structures into which bars united in such a manner may enter.

A are bars which, in the present case, are shown parallel with each other. If used for semi-circular transoms, these bars might be made in curves. Through these bars slots are made of sufficient length and width to receive the bars B which are to be fixed transversely to the bars A. One of the bars B having first been inserted in the punched hole in the bars A, while that portion which passes through the bar is in a flat untwisted condition, is then twisted upon each side of the bar A to any desired distance. One turn or less, upon each side of the bar A, will suffice to lock the two firmly at their point of junction, but, if preferred, for ornamental purposes, the twist may be continued to the next bar A through which the bar B is to pass and in the same manner the bar B is passed through the second bar A while in its flat condition, and

is afterward again twisted to lock this bar in place, and so on for as many as may be desired. The twisting may be continued in the same direction in the form of a spiral, or the bar may be twisted in one direction upon one side of the bar through which it passes, and then twisted in the reverse direction on the other side, thus alternating through any number of slotted bars, at any distances apart. Any number of these parallel rails A may be united by any number of transverse rails B, and at any suitable or desired distance apart.

Various arrangements of the bars may be made for ornamental purposes, or they may simply be left plain with the exception of the twists made where the parts are united together. It will be manifest that in uniting them for the purpose of fencing, either the vertical or the horizontal bars may be slotted, while the others will be twisted as shown. By this construction, I am enabled to unite bars together to form various structures without the use of rivets, calking, bolting, or other method of supplemental fastening.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent is—

The combination of the bars A and B arranged at right angles to each other, and both being twisted as shown, the bars of one set or series having plain untwisted portions between adjacent twisted portions, and the bars of the other series being passed through slots in said untwisted portions whereby their twisted portions upon each side of the slots form locks for securing the bars together with the edges of both sets of bars uppermost at intervals.

In witness whereof I have hereunto set my hand.

JOHN T. McCORMICK.

Witnesses:

A. J. ROBINSON,  
D. L. CUPPLES.