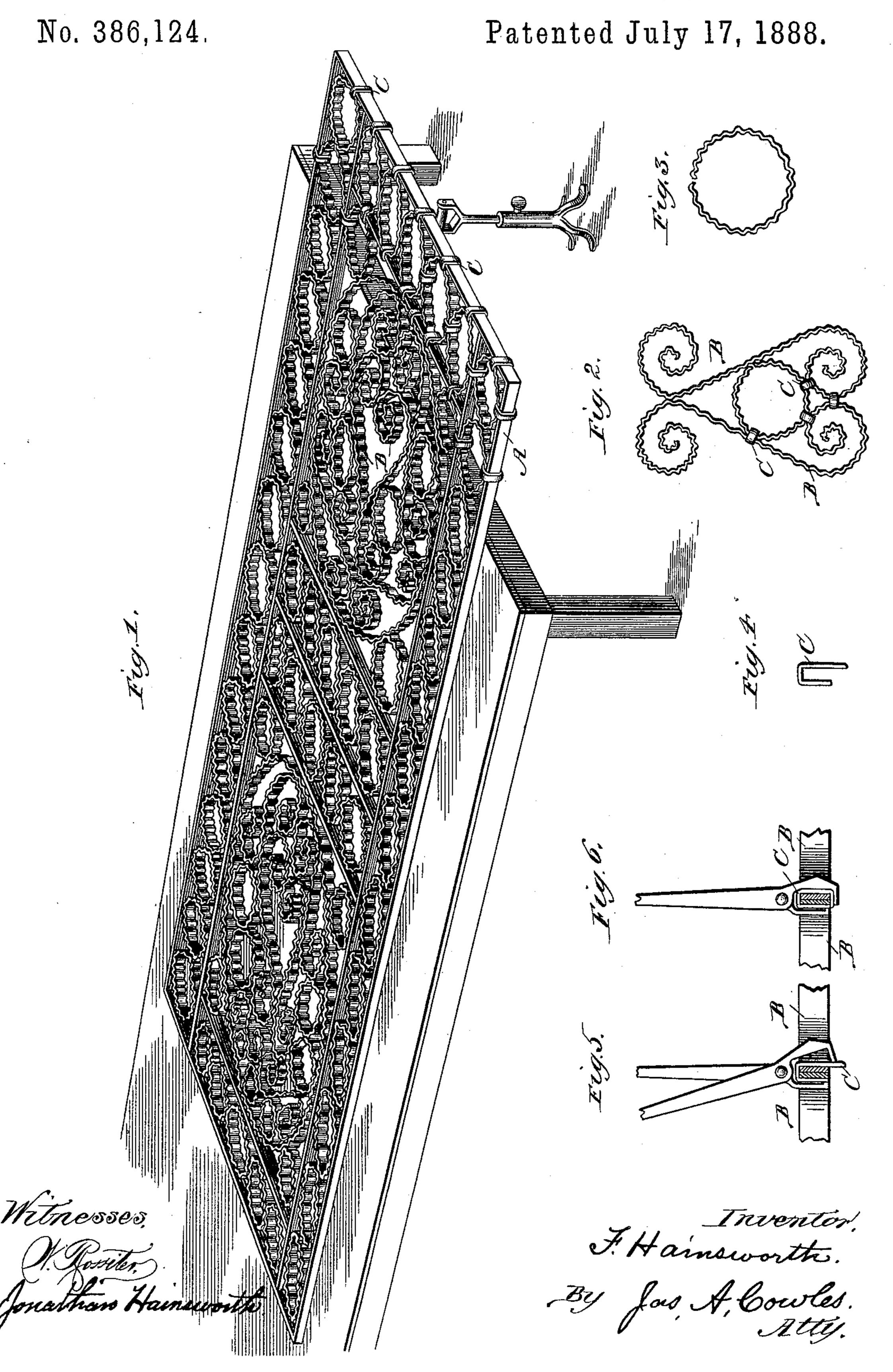
## F. HAINSWORTH.

METHOD OF UNITING PIECES OF SCROLL WORK.



## United States Patent Office.

FREDERICK HAINSWORTH, OF CHICAGO, ILLINOIS.

## METHOD OF UNITING PIECES OF SCROLL-WORK.

SPECIFICATION forming part of Letters Patent No. 386,124, dated July 17, 1888.

Application filed March 16, 1887. Serial No. 231,202. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK HAINS-WORTH, a citizen of the United States, residing at Chicago, in the State of Illinois, have made certain new and useful Improvements in the Method of Manufacturing Scroll-Work, of which the following is a specification.

The nature and object of this invention are to provide a method for making scroll-work to which will be cheap, practical, and useful.

This is an improvement on Letters Patent of the United States Nos. 351,435 and 351,436, issued to me, both on the subject of scrollwork.

Figure 1 is a perspective of a piece of scroll-work lying on the table with one end projecting over the end of the table, and this projecting end resting on a support. Fig. 2 is a detail of scrolls. Fig. 3 is a detail of a ring used in the scroll-work. Fig. 4 shows the loop used to join the parts together. Fig. 5 shows the loop in position and the tool in the act of closing the open ends of the loop. Fig. 6 shows the loop with its open ends closed by the tool.

I form my scrolls in any design or shape, and then place them in position on a table, surrounded by a frame, if desired, as shown in Fig. 1, in which A is the frame; B B, the 30 scrolls, and C C are the loops. The loops are placed over the pieces of scrolls at the points where they are to be joined together. These points are in such close proximity to other parts of the scroll as to make them inaccessi-35 ble for riveting; hence the necessity for using the loop for joining the parts together. The loop is made with one arm longer than the other. (See Fig. 4.) To close the open ends of the loop, I use angular-jawed tongues, as 40 shown in Figs. 5 and 6. When the scrollwork is placed in position on the table, it is moved so that one end will project over the table sufficiently far to present an open space below the points where the loops are to be 45 placed on the scrolls. This affords a free and

unobstructed way or space for the longer end

of the loop to be swung across the lower side, to thus clasp and bind the scrolls and rigidly hold them together.

In Fig. 5 is shown the tool in position just 50 in the act of forcing the long end of the arm across the lower side. In Fig. 6 is shown the same tool having accomplished the act of swinging the longer arm across the lower side and the loop entirely embracing the two pieces 55 of scrolls, and thus fixedly holding them together without the use of rivets or bolts.

By laying the scrolls on the table and projecting them over the ends or sides of the table, as shown in Fig. 1, I avoid the necessity 60 of the use of any elevated frame or other means for providing free open spaces below the points where I place the loops on the scrolls.

I have found by experience that this method is exceedingly economical, simple, and most 65 effectual.

I claim—

1. That improvement in the art of fastening together scroll-work which consists in placing the scrolls in position directly on a table, projecting the scroll-work over the end or side of the table, then passing an open-ended loop having one arm thereof longer than the other over the scrolls at the points to be joined or united, and then closing the open ends of the 75 loop and tightly binding the scrolls by means of a suitable tool, all substantially as described.

2. That improvement in the art of manufacturing scroll-work which consists in placing the scrolls in position, leaving open spaces 80 around the points of contact of the scrolls, placing an open-ended loop, with one arm thereof longer than the other, around the points to be joined together, then closing the open arms over the scrolls, thus clasping the 85 scrolls and firmly binding them together by means of a suitable tool.

## FREDERICK HAINSWORTH.

Witnesses:

JAS. A. COWLES, S. G. WILLARD.