E. WIGHT.

Making Umbrella Irons.

No. 108,742. Patented Oct. 25, 1870.

Fig. 1.

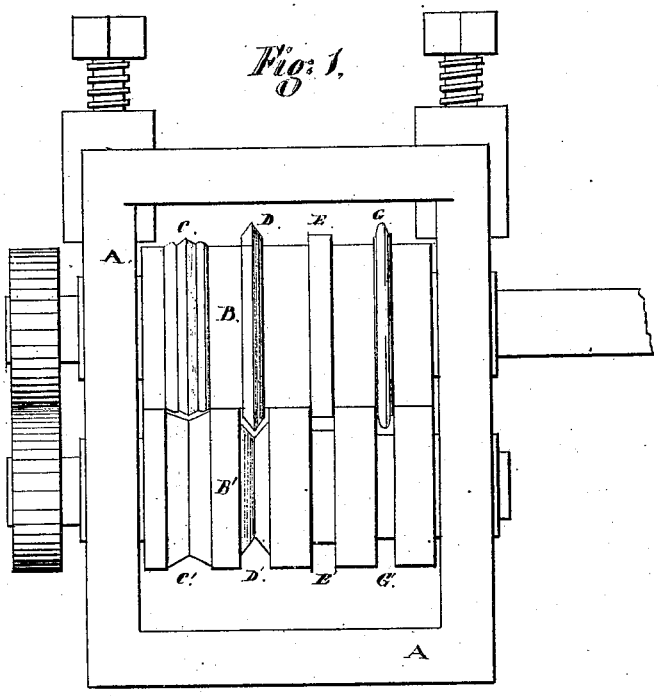

Fig. 2.

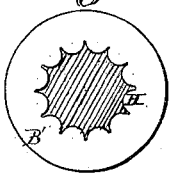

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

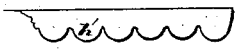

Fig. 8.

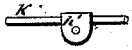

Fig. 9.

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EDWIN WIGHT, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 108,742, dated October 25, 1870.

IMPROVEMENT IN MACHINES FOR MAKING UMBRELLA-CONNECTIONS.

The Schedule referred to in these Letters Patent and making part of the same.

I, EDWIN WIGHT, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improved Mode of Making "Umbrella-Connections," of which the following is a specification.

The nature of my invention consists in rolling the connections into form by passing sheet metal between a series of properly-grooved rollers, after which they are finished in the present usual mode, and attached as connecting-joints to umbrellas and parasols.

To enable those skilled in the art to make and use my invention, I will proceed to describe the construction of the machine and mode of operation, reference being had to the accompanying drawing, in which—

Figure 1 is an elevation of a pair of rolls.

Figure 2 is a cross-section through the lower roll.

Figures 3, 4, 5, 6, and 7, show sections through the connection at different stages of the operation.

Figure 8 shows the connection finished and secured to the rib of the umbrella.

Figure 9 is an end view of the same.

I will first state that the connections as now made are cast of brass into the form shown in fig. 7. They are afterward cut off in sections *h'*, (see fig. 8,) drilled, and the wings S S are clamped upon the rib K.

My mode of manufacturing is this:

Fig. 1 shows a pair of rolls, B B', geared together and driven by power, as used by metal-workers.

The upper roll B has beads of the shape shown, C D E G, fitting into certain shaped grooves, C' D' E' G', in the lower roll.

A piece of annealed sheet-brass, or other metal, of section fig. 3, and it may be one foot to one hundred feet long, is passed through form C C', which gives it the shape, fig. 4. It is then passed through form D'. coming out in shape, fig. 5.

The two sides are then flattened together by form E', as in fig. 6.

The serrated edge is then formed in grooves G', a section through which is shown in fig. 2, the strips of brass coming out as shown in side view, fig. 7.

The wings S S are thus made of more uniform thickness than by the usual mode of casting.

The connections *h'* are then sawed off, finished, and secured to the steel rib K in the usual manner.

I claim as my invention—

1. The particular devices upon the rolls B B', as indicated by the letters C D E G, and their counterparts, for molding and notching a strip of metal, for the purpose herein set forth.

2. The mode herein set forth of manufacturing umbrella-connections by first preparing a strip or ribbon of metal, of the proper width and thickness, then passing it successively through the several shaping-rolls, and finally dividing the said strips into sections, as that shown in fig. 8.

EDWIN WIGHT.

Witnesses:

EDWD. BROWN,

JOHN F. GRANT.