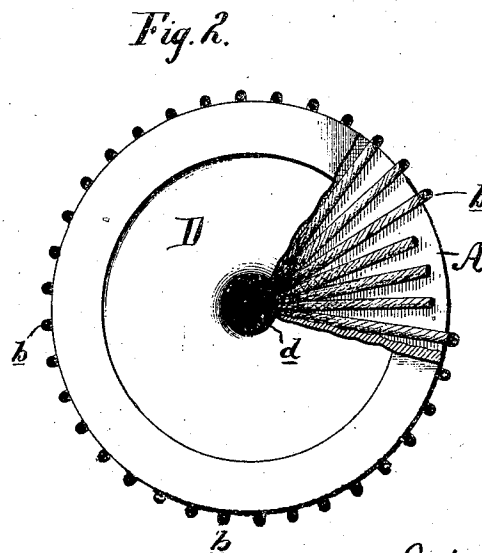
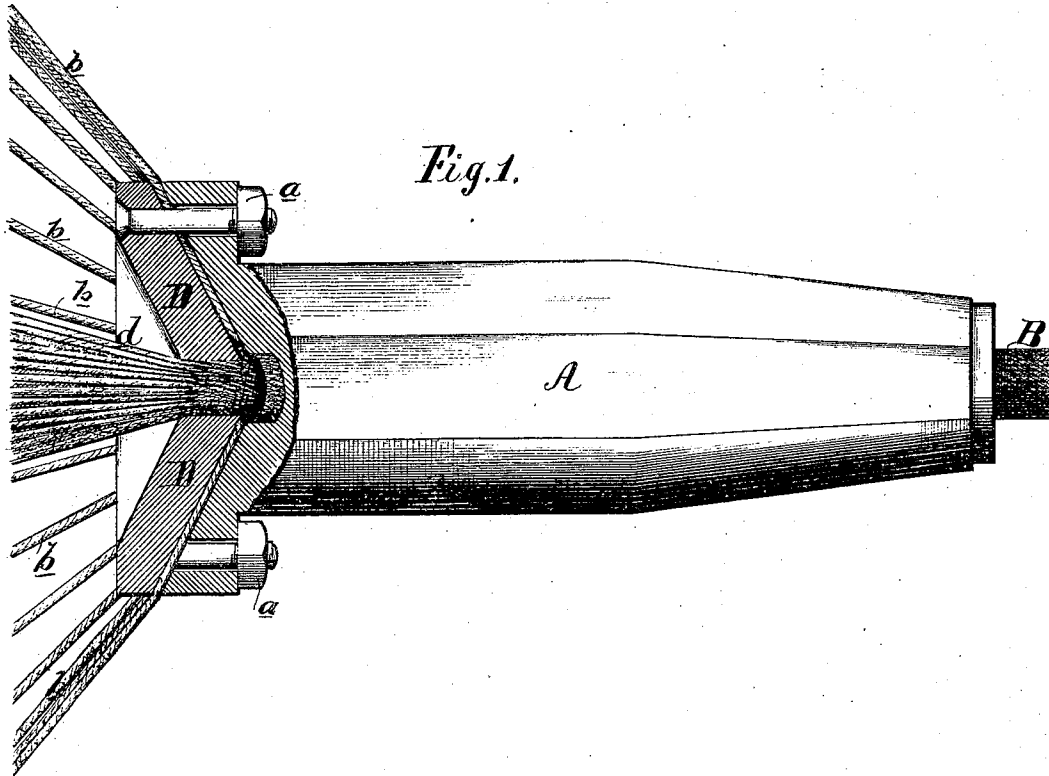


J. RINEK.
TUBES FOR FORMING ROPE.

No. 170,595.

Patented Nov. 30, 1875.



Witnesses,
Hubert Houston
Harry Smith

John Rinek,
By his Attorneys
Husman and Son

UNITED STATES PATENT OFFICE.

JOHN RINEK, OF EASTON, PENNSYLVANIA.

IMPROVEMENT IN TUBES FOR FORMING ROPES.

Specification forming part of Letters Patent No. **170,595**, dated November 30, 1875; application filed May 3, 1875.

To all whom it may concern:

Be it known that I, JOHN RINEK, of Easton, Northampton county, Pennsylvania, have invented an Improved Tube for Forming Rope, of which the following is a specification:

My invention relates to an improvement in forming-tubes, through which the threads are drawn as they are twisted into a strand; and the object of my invention is to prevent the twist or turn from passing through the tube, and also to prevent the threads from rolling on each other. This object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a side view, partly in section, of my improved tube for forming strands for rope; and Fig. 2, an end view of the same.

The body A of the tube is similar to that of an ordinary tube, through which the strand of twisted threads is drawn, and by which the strand is compressed and its size defined, the tube being, as usual, secured to a fixed frame in the rope-walk, and the strand B drawn from the tube down the rope-walk by a hauling-jack, or wound onto a drum, preparatory to being formed, in conjunction with other strands, into a rope. It has been usual to make these tubes with a simple flaring entrance to the central opening, to which the threads converge; but difficulty has been experienced in preventing the threads from rolling on each other, and especially to prevent the outer series of threads from being wound upon the

inner series as they reach the entrance to the tube. I overcome this difficulty by so securing to the front end of the tube the regulating-guide D by means of bolts *a*, or otherwise, the guide serving to separate the outer series of threads from the inner series, the latter passing through the central opening of the guide, while the said outer threads pass through the space between the guide-plate D and the body of the tube. Thus the rolling of the outer upon the inner series of threads is prevented, while the outer threads are so regulated by the edge of the guide that they cannot roll on each other.

It will be understood that all the threads pass, as usual, through holes in a gage-plate at a short distance from the tube before they pass through the latter.

I claim as my invention—

In combination with the condensing-tube A, having a flaring mouth, the annular plate D, arranged between the central and outer series of strands forming the cord, to prevent the outer series from winding upon the central strands as the same are twisted prior to entering the condensing-tube, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN RINEK.

Witnesses:

J. A. TRANSUE,
EVAN KNIGHT.