

No. 847,177.

PATENTED MAR. 12, 1907.

E. H. GUERIN.
COP TUBE.

APPLICATION FILED NOV. 19, 1906.

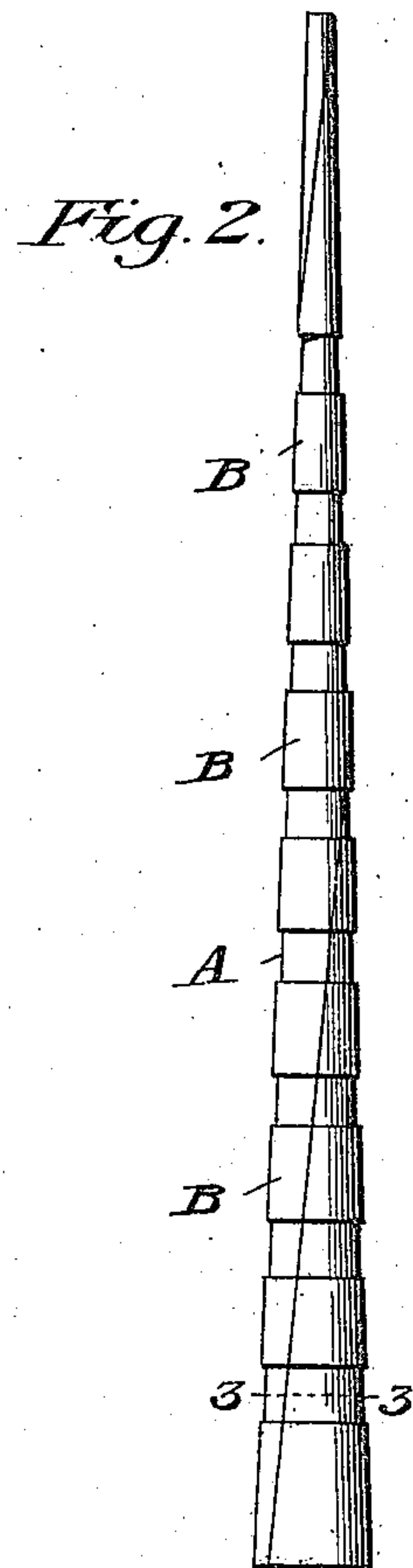
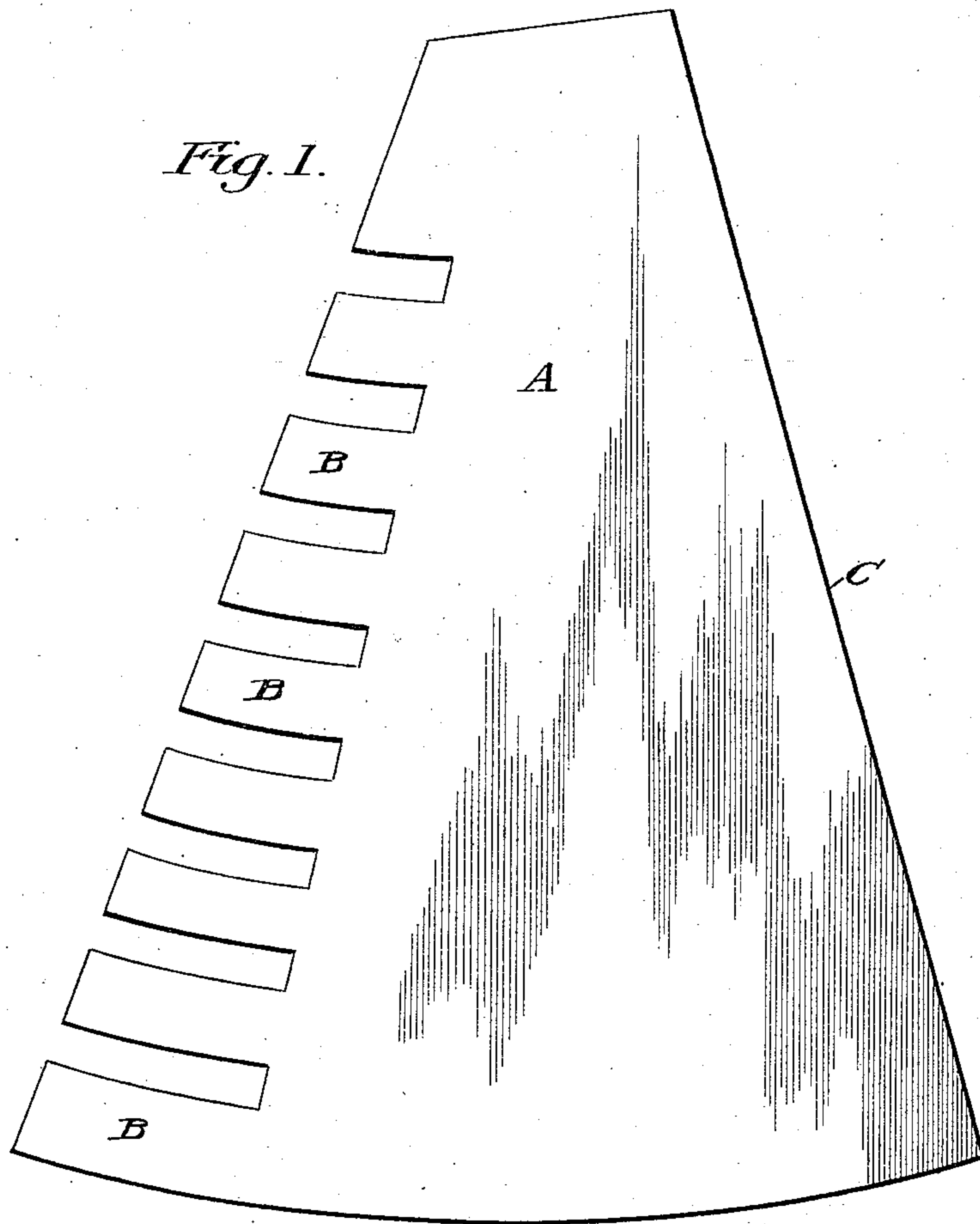
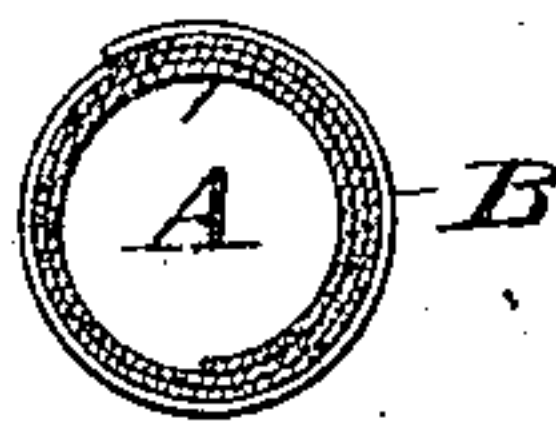


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

EDMOND H. GUERIN, OF WOONSOCKET, RHODE ISLAND.

COP-TUBE.

No. 847,177.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed November 19, 1906. Serial No. 344,136.

To all whom it may concern:

Be it known that I, EDMOND H. GUERIN, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Cop-Tubes, of which the following is a specification.

My invention pertains to cop-tubes of the kind that are formed of coiled sheets of paper or other pliable material and are provided at points intermediate their ends with reinforcing-rings designed to serve the additional office of lessening the liability of the yarn slipping or being pulled off the tube incident to handling thereof; and it consists in the peculiar and advantageous cop-tube hereinafter described, and particularly pointed out in the claim appended.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of the prepared sheet from which the cop-tube constituting the preferred embodiment of my invention is formed. Fig. 2 is an elevation of the cop-tube formed and ready for use. Fig. 3 is a transverse section taken in the plane indicated by the line 3 3 of Fig. 2.

Similar letters of reference designate corresponding parts in all of the views of the drawings.

In carrying out my invention and producing my novel cop-tube I take a sheet A of pliable material, preferably paper, and give it the shape in outline shown in Fig. 1 and provide it at one of its long edges with a plurality of tongues B, which are gradually increased in length as they recede from the narrow end of the sheet and approach the wide end thereof. I then apply suitable adhesive to the sheet A in the manner common to the manufacture of this type of cop-tube, after which, starting with the plain long edge C of the sheet, I coil the said sheet into the form shown in Figs. 2 and 3. This will place the tongues B at the outer side of the cop-tube, and incident to the completion of

the coiling of the sheet the said tongues are wound around and fastened by adhesive to the outer coil of the sheet, so that their free ends meet their heels, or the points at which they are joined to the sheet. As thus arranged the tongues B obviously form rings which serve to reinforce and lend strength to the coiled tube and at the same time are adapted to catch and hold yarn against longitudinal movement on the tube and in that way lessen the liability of the yarn being pulled off the tube incident to handling thereof.

The rings B may be arranged to extend at right angles to the length of the cop-tube, as shown, or at any other angle compatible with the purpose of my invention without involving departure from the scope of my invention.

By virtue of the reinforcing and yarn-holding rings B being formed of tongues integral with the sheet of pliable material A it will be apparent that the said rings are formed and secured on the remainder of the tube by the coiling of the tube, which contributes materially to cheapness of production, and it will also be apparent that the said rings B are not, like the separately-applied rings extant, likely to be displaced from the tube and become entangled in the yarn.

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

A cop-tube composed of a sheet of pliable material coiled upon itself; one edge of said sheet extending longitudinally of the exterior of the tube and having tongues at intervals of its length which extend entirely around the tube and form rings for reinforcing the tube and holding yarn against longitudinal movement on the tube.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EDMOND H. GUERIN.

Witnesses:

GEO. W. SPAULDING,
EDGAR L. SPAULDING.