

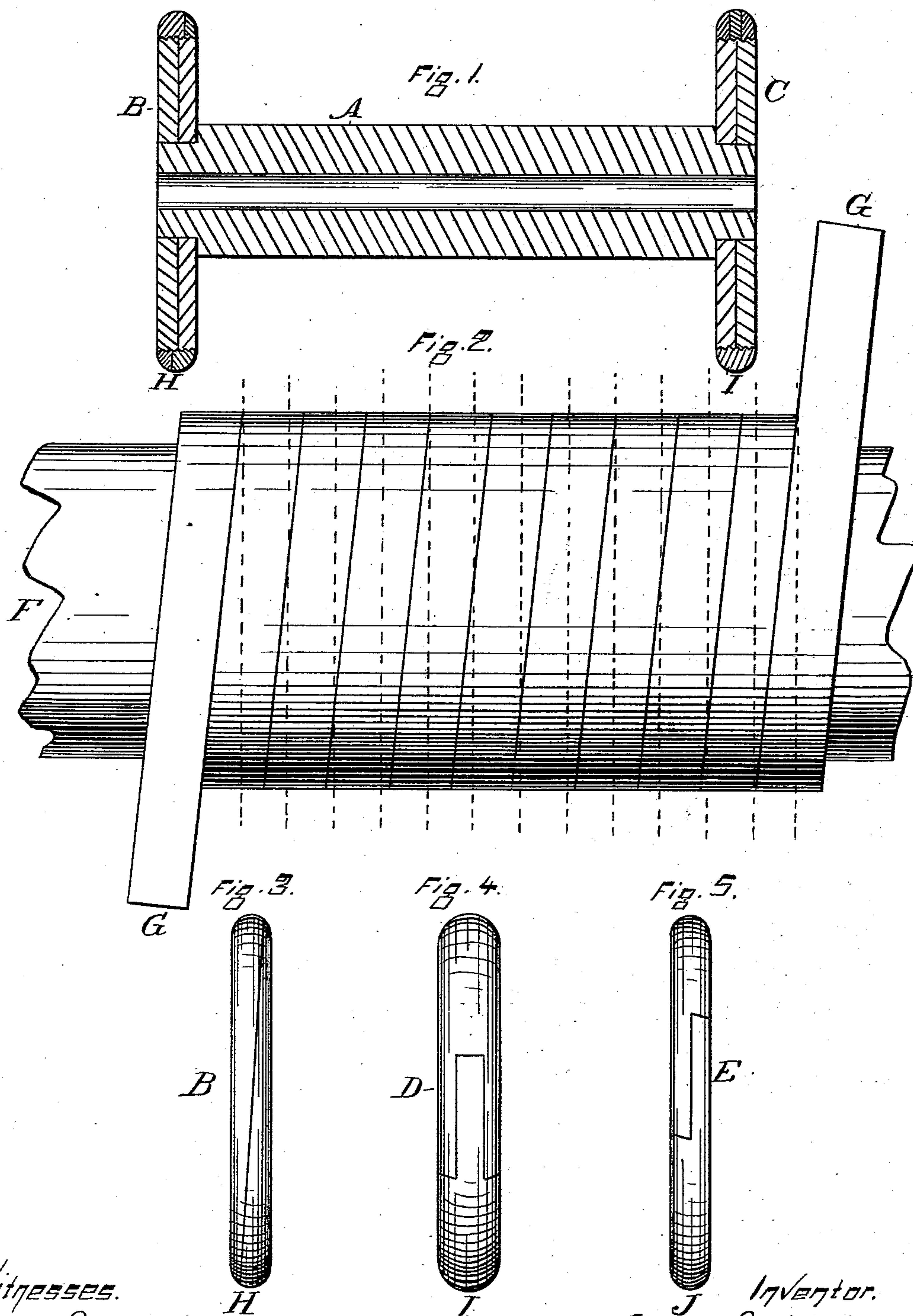
(No Model.)

O. E. WAIT.

SPOOL.

No. 350,224.

Patented Oct. 5, 1886.



Witnesses.

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UNITED STATES PATENT OFFICE.

OSCAR E. WAIT, OF SPRINGFIELD, VERMONT.

SPOOL.

SPECIFICATION forming part of Letters Patent No. 350,224, dated October 5, 1886.

Application filed April 19, 1884. Serial No. 123,541. (No model.)

To all whom it may concern:

Be it known that I, OSCAR E. WAIT, a citizen of the United States, and a resident of Springfield, in the county of Windsor and State of Vermont, have invented a certain new and useful Improvement in Spools, of which the following description and claim constitute the specification, and which is illustrated by the accompanying sheet of drawings.

10 This improvement consists of a spool or bobbin the head of which is furnished with a bent wood tire of peculiar construction.

In the accompanying drawings, Figure 1 is a longitudinal diametrical section of a spool, 15 each head of which is furnished with one of my bent wood tires; but with different forms of lap. Fig. 2 is a plan view of a cylindrical former having a strip of wood wound spirally around it. Fig. 3 is an edge view of the left-hand head of the spool, showing the oblique 20 lap. Fig. 4 is an edge view of the right-hand head of the spool double in thickness, and showing the tenon form of lap. Fig. 5 is an edge view of a slight modification of the right-hand head of the spool, showing a rabbeted 25 lap.

A is the body of the spool. B is the left-hand head. C is the right-hand head. D is the right-hand head doubled in thickness. 30 E is the right-hand head slightly modified in its tire. F is a cylindrical former, made, preferably, of metal. G is a strip of wood about half as thick as it is wide, and wound spirally around the former. The plates of the spool-heads are made of two pieces of wood glued 35 together, with the grains running at a right or other considerable angle to each other. The peripheries of the plates of the spool-heads are furnished with screw-threads running spirally around them. The bent wood 40 tires H and I are practically continuous bent wood rings, having respective cross-sections as shown, and furnished on their interior peripheries with screw-threads corresponding to 45 those on the peripheries of the plates of the spool-heads. The tire J is identical with the tire I, except that it is narrower, and except that the joint therein is somewhat different in form, as shown.

50 The process of making the tire H is as follows: Strips of wood are prepared of any convenient length. They are preferably of rock-ma-

ple, parallelogrammic in cross-section; somewhat wider than the plates of the spool-heads are thick, and about half as thick as they are 55 wide. The former is preferably heated as hot as the wood will bear, and the strips are steamed shortly before being bent around the former. Such a strip of wood is wound around the former spirally, as shown in Fig. 2. It is 60 then removed from the former and its cylindrical shape preserved. When sufficiently dried, the spiral cylinder thus produced is sawed into rings by severing one ring after another on the perpendicular dotted lines 65 shown in Fig. 2, the saw-cuts all being diametrical in direction and at right angles with the axis of the cylinder which is being cut up into rings. Then the oblique lines of jointure of the rings are fastened together with 70 glue, so as to produce a continuous bent wood ring having a parallelogrammic cross-section. The rings are then furnished with screw-threads on their inner peripheries, then 75 screwed upon the peripheries of the plates of the spool-heads, then turned in a lathe into conformity with the cross-section shown at letter H of Fig. 1, or into any other desired form.

The process of making the tire I is as follows: 80 A strip of wood is provided somewhat longer than the circumference of the spool-head, and otherwise similar to the strips hereinbefore described. A mortise is made in one of its ends, extending through from side to 85 side of the strip, leaving the end fork-shaped, and a tenon to fit the mortise is made in the other end of the strip. The strip is then bent into a ring in any proper manner, and the tenon is inserted into the mortise and fastened 90 there by dovetailed joints, pivots, glue, or dowels, or by any or all of those means. When dry, a ring thus constructed is furnished with a screw-thread on its interior periphery, then 95 screwed upon the periphery of the plate of the spool-head, then turned in a lathe into conformity with the cross-section shown on the tire of the right-hand spool-head in Fig. 1, or into any other desired form.

I am aware that a prior patent shows a spool 100 having heads furnished with bent wood tires, the same being bent around the spool-heads, after which the ends of the tire are fastened by pins, and the same is hereby disclaimed.

I also disclaim a bobbin having an internal ring or bushing at one end formed from a spirally-wound strip of wood, as shown in a prior patent to myself.

5 I claim as my invention—

In combination with a spool having heads or flanges provided with threaded peripheries, tires formed of strips of wood made into com-

plete rings, substantially as herein described, and threaded internally to engage the threaded flanges, all for the object set forth.

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Witnesses:

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