

A. CLARKE.
Umbrella Ribs.

No. 153,241.

Patented July 21, 1874.

FIG. I.

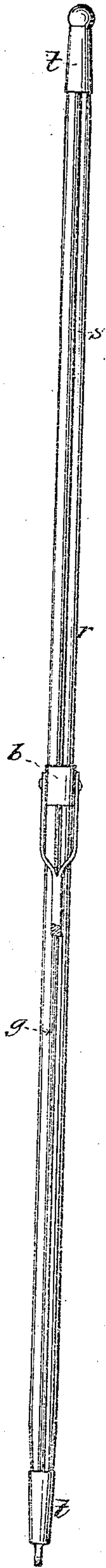


FIG. II.

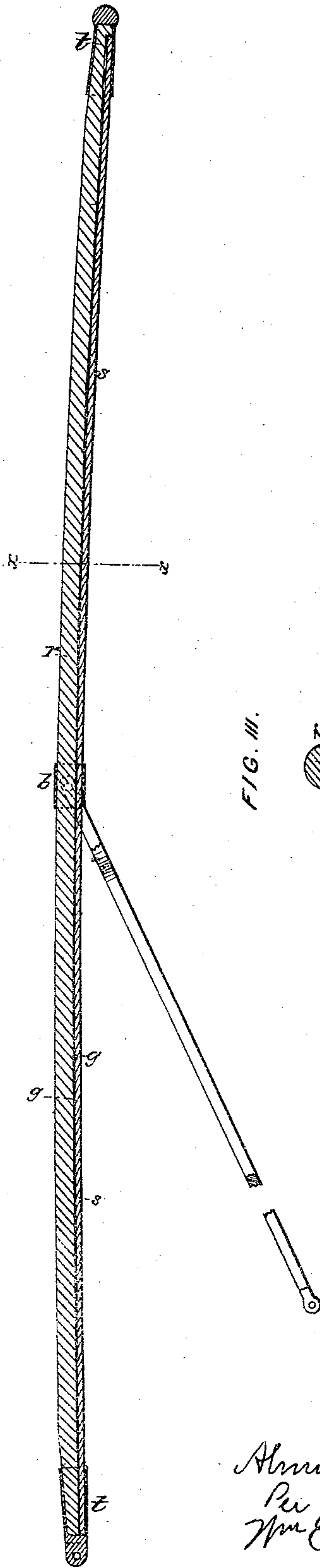


FIG. III.



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ALMON CLARKE, OF SHEBOYGAN, WISCONSIN, ASSIGNOR TO HIMSELF,
CHARLES A. SPENCER, AND JAMES T. SMITH.

IMPROVEMENT IN UMBRELLA-RIBS.

Specification forming part of Letters Patent No. **153,241**, dated July 31, 1874; application filed
July 11, 1874.

To all whom it may concern:

Be it known that I, ALMON CLARKE, of Sheboygan, county of Sheboygan and State of Wisconsin, have invented certain Improvements in Ribs for Umbrellas, of which the following is a specification:

My invention consists in combining a rod of steel or other suitable metal with a rod of rattan or other suitable wood or whalebone in such a manner as to constitute an umbrella-rib.

In the accompanying drawings, Figure 1 represents longitudinal view, Fig. 2 represents a longitudinal sectional view, and the letters thereon designate the parts referred to in the following description.

Extending the entire length of the rod *r*, of rattan or suitable wood or whalebone, is a groove, *g*, which receives a rod of steel or other suitable metal, *s*. This groove in the rattan is of sufficient depth to receive the whole diameter of the metallic rod, and wide enough to obviate binding between the wood and metal. The metallic rod is a very little shorter than the rattan, as its proper position in the umbrella is the lower or inner surface of the rib. At each end of the rib a metallic tip, *t*, embraces both the wood and metal, and is riveted to the former. The two rods are

held together near the middle by a band, *b*, of thin metal, to which the stretcher is fastened, as in the ordinary rattan rib. Other similar bands may be used, if necessary.

This rib is simple, easily made, and inexpensive, while some of its principal advantages over the simple rattan rib are its great additional strength, elasticity, and freedom from liability to warp. It is also better than the steel rib, as it is a re-enforcement of wood by steel, and its fastenings are far more secure.

I claim as new and desire to secure by Letters Patent—

1. An umbrella-rib composed of rattan, whalebone, or other suitable wood, having a longitudinal groove for receiving the rod of steel or other metal, substantially as set forth.

2. The method of combining and holding together the wooden and metallic parts of the rib by means of the band *b*, substantially as described, and for the purpose specified.

3. A compound rib for umbrellas, composed of a wooden or whalebone rib and one of steel or other metal, arranged substantially in the manner and for the purpose set forth.

ALMON CLARKE.

Witnesses:

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