

(No Model.)

J. JEFFERY & J. SIMPSON.

FRAME OF UMBRELLA.

No. 433,625.

Patented Aug. 5, 1890.

Fig. 2.

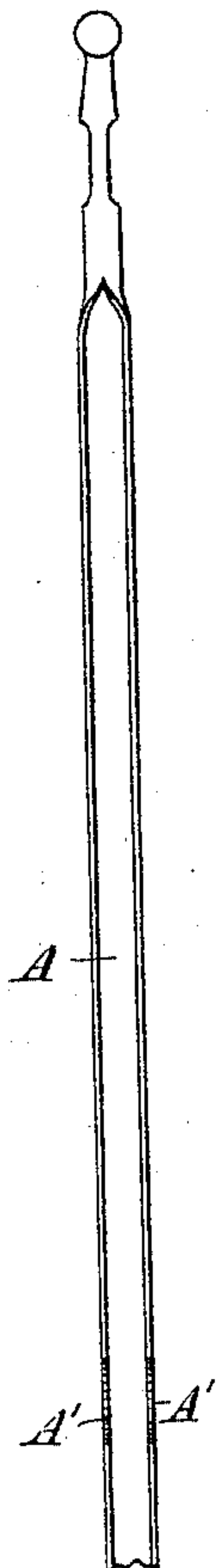


Fig. 1.

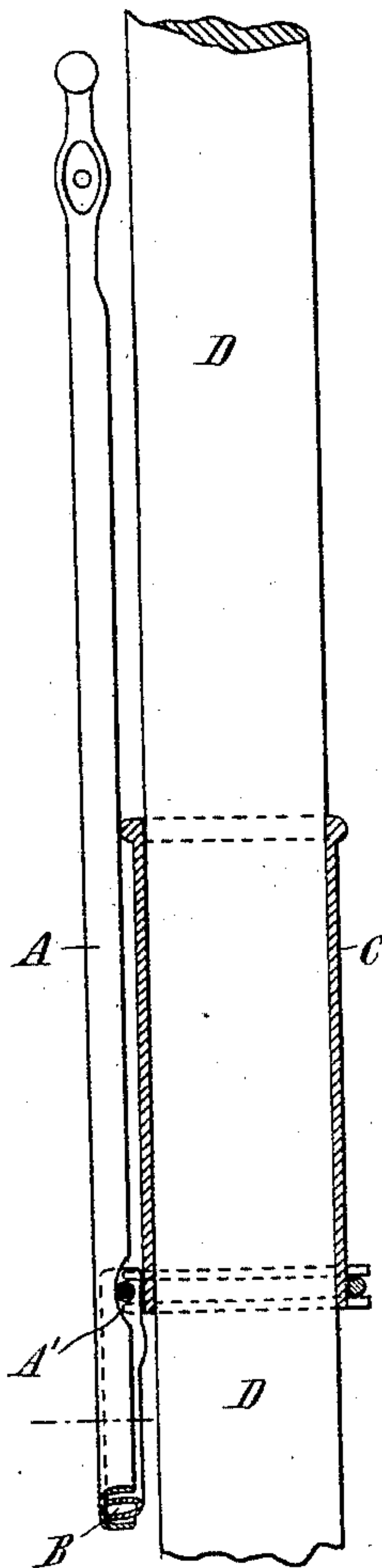


Fig. 4.

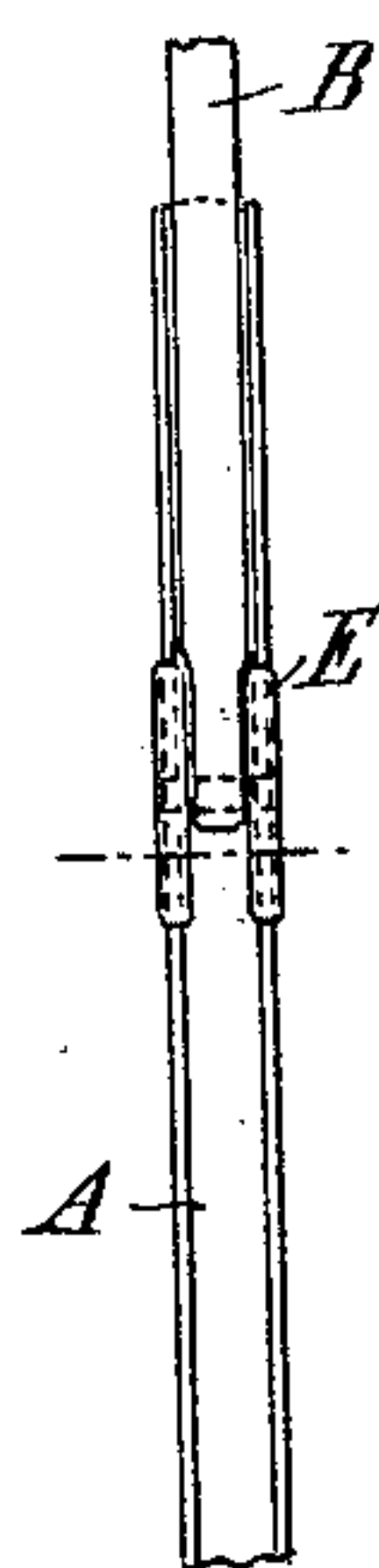


Fig. 5.

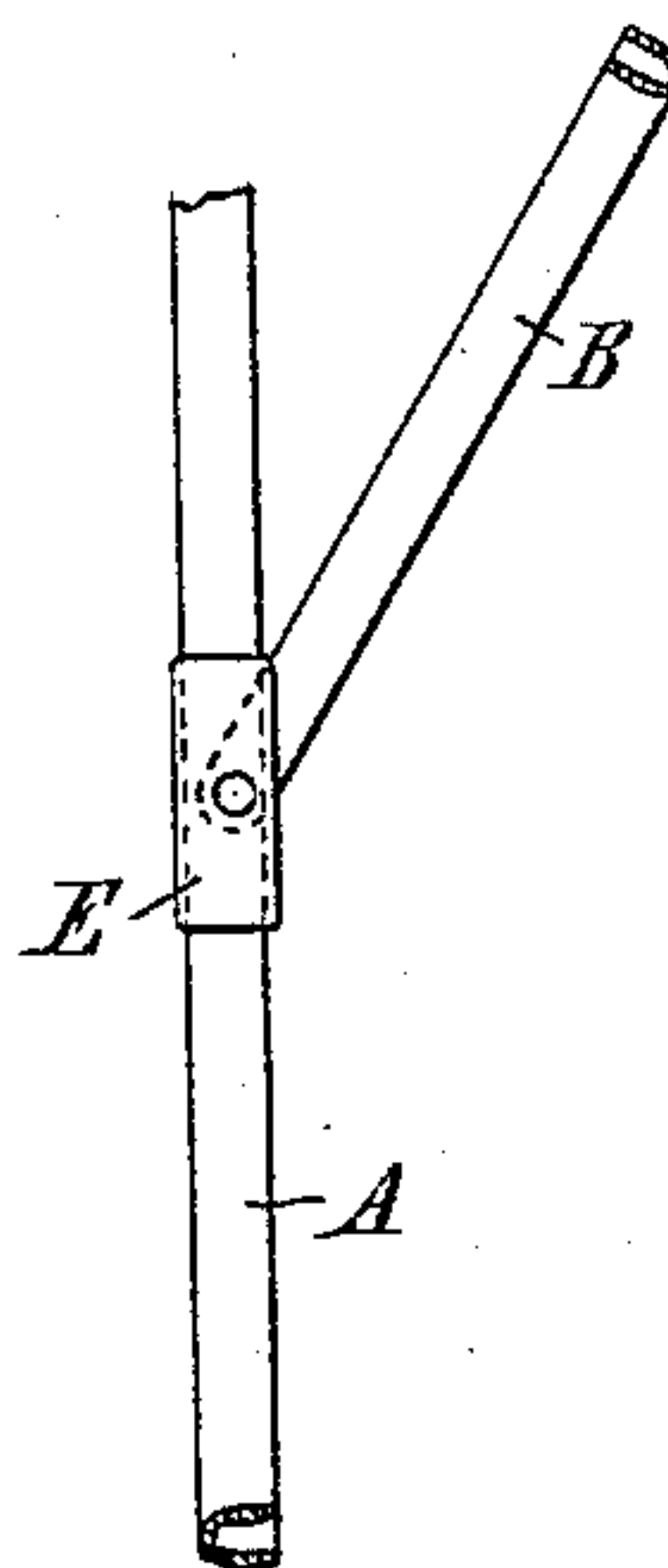


Fig. 6.



Fig. 3.



Witnesses
Baltus D. Long.
C. W. Brooke.

Inventors
John Jeffery.
John Simpson.
By their Attys.
Baldwin Davidson & Wright

UNITED STATES PATENT OFFICE.

JOHN JEFFERY AND JOHN SIMPSON, OF SHEFFIELD, ASSIGNORS TO THE SAMUEL FOX & COMPANY, LIMITED, OF STOCKSBRIDGE WORKS, ENGLAND.

FRAME OF UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 433,625, dated August 5, 1890.

Application filed February 5, 1890. Serial No. 339,254. (No model.) Patented in England January 11, 1888, No. 471, and in France October 10, 1888, No. 193,447.

To all whom it may concern:

Be it known that we, JOHN JEFFERY and JOHN SIMPSON, managers, subjects of the Queen of Great Britain, both residing at the Stocksbridge Works, near Sheffield, in the county of York, England, have invented certain new and useful Improvements in the Frames of Umbrellas, Parasols, or Sunshades, and in their Manufacture, (for which we have received Letters Patent in Great Britain, No. 471, dated January 11, 1888, and in France, No. 193,447, dated October 10, 1888,) of which the following is a specification.

The ribs we make of trough-wire, but wider than heretofore usual. The stretcher we also form of trough-wire, but of a width to allow of its lying within the trough-rib, and where it is pivoted to the rib the stretcher is reduced or made narrow. The git, which is secured to the rib where the stretcher is to be jointed to it, we form of a piece of thin sheet metal bent around the exterior of the rib and its ends doubled over and made to embrace and clip the two sides of the trough. The git and rib are subsequently pierced for the joint-pin to be passed through them. The rib also near its tip end and where it has to lie against the rim of the runner when the umbrella is closed has two notches cut out from its opposite sides, so that the rib may lie close against the barrel of the runner, or a like form may be given to the rib by denting or bending the sides inward.

By constructing the frames of umbrellas in the above manner the stretchers can be made to lie entirely within the ribs when the frame is closed and a stronger and smaller folding umbrella be obtained.

Figure 1 of the drawings hereunto annexed shows part of the stick and runner and one of the stretchers and ribs of an umbrella-frame formed in the above manner. Fig. 2 shows separately the tip end of the rib with the notches formed in its opposite sides where it lies against the runner. Fig. 3 is a cross-section of the rib and stretcher. Figs. 4 and 5 show two views of the joint connecting the stretcher with the rib, and Fig. 6 is a cross-section of the rib and git.

A is the rib, B the stretcher, C the runner, 50 and D the stick.

A' are the notches in the opposite sides of the rib where it lies against the end of the runner.

E is the git, formed of a piece of thin metal bent around the rib, and its ends doubled over and made to embrace and clip the two sides of the trough-wire of which the rib is formed. The piece of metal is first bent by dies to the required form and then slipped onto its proper position upon the rib and clamped upon it by dies and afterward pierced to receive the joint-pin, as will be well understood. The stretcher B is reduced in size or made narrow where it is pivoted to the rib and the git-piece, so that the main body of the stretcher fills the trough of the rib, but its reduced end fits loosely between the inner sides of the git-piece. The notches in the sides of the trough-ribs may be formed by cutting away the metal from the sides by means of cutting-dies, as will be well understood, or they may be otherwise suitably formed, as by bending the sides of the ribs.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

In a lock-rib umbrella-frame, the combination of a rib or trough wire having the notches A', a git-piece of thin sheet metal extending around the outside of the rib, bent over the edges, and extending along the inner sides of the rib, a stretcher of trough-wire having its ends where it is secured to the rib reduced or made narrow and lying within the opposing inner sides of the git-piece, and a pivot-pin extending through the two sides of the rib, the two double sides of the git-piece, and the reduced end of the stretcher.

JOHN JEFFERY.
JOHN SIMPSON.

Witnesses:

W. F. BURDEKIN.

C. B. HOBBS,

Clerk to Messrs. Burdekin & Co., Solicitors,
Sheffield, England.