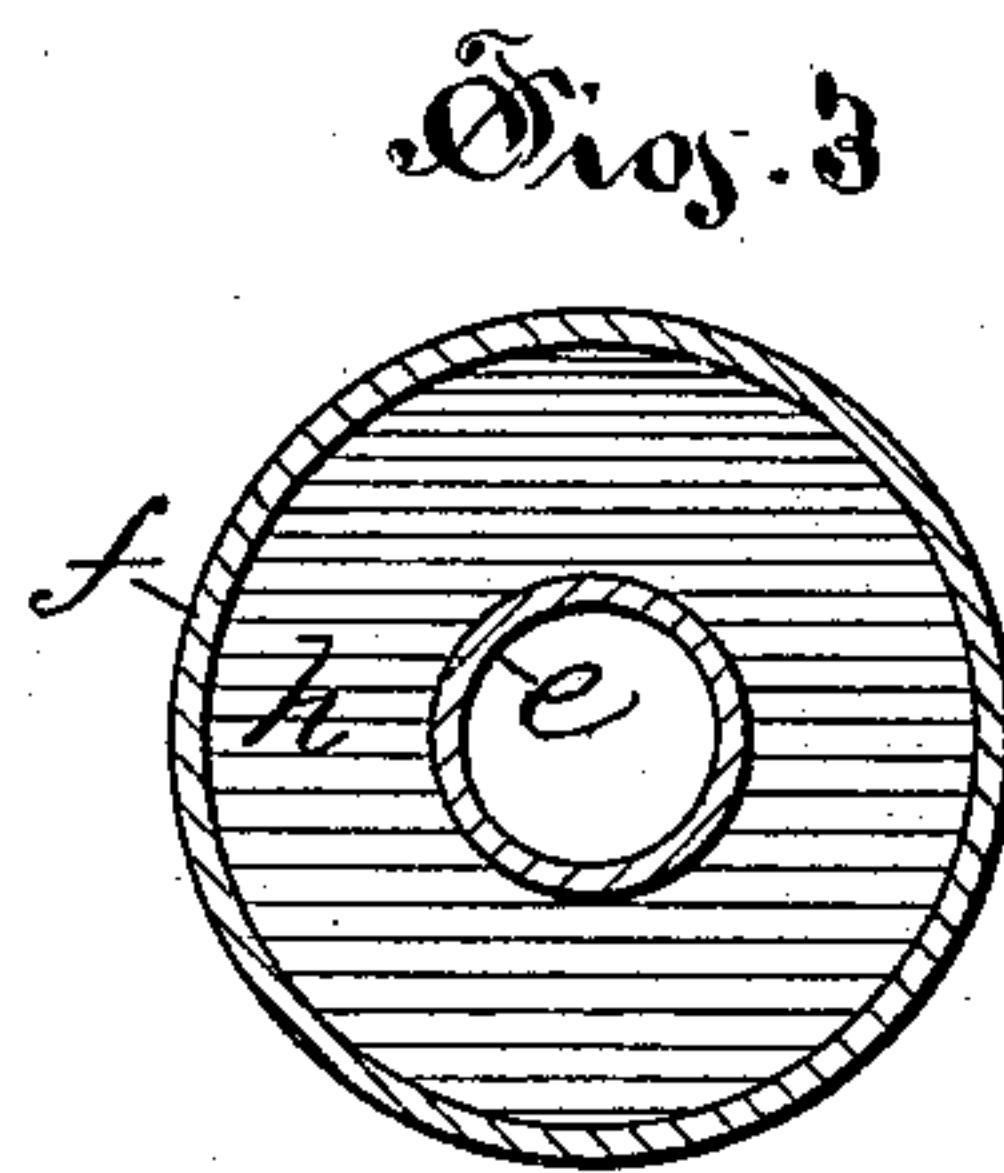
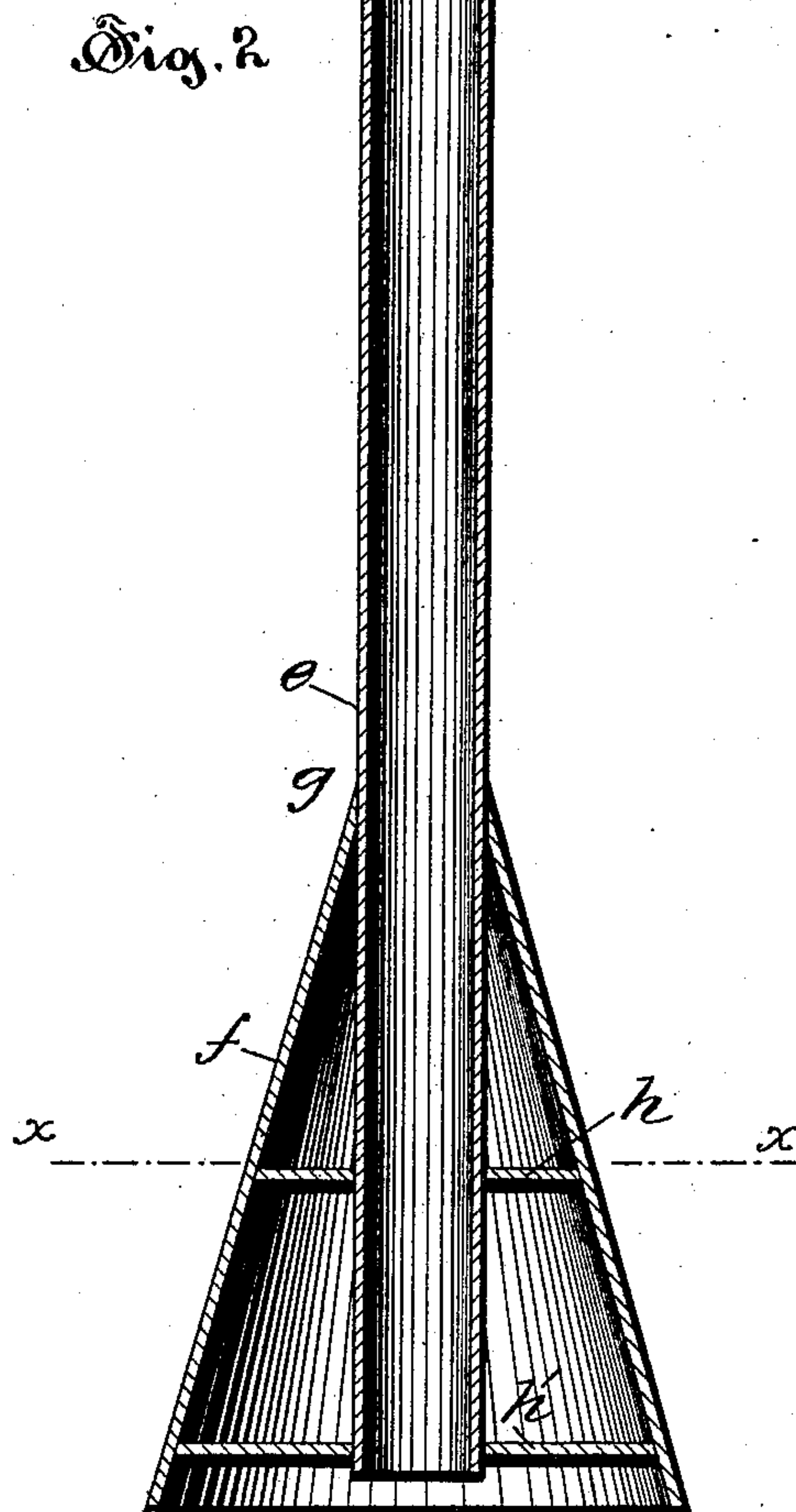
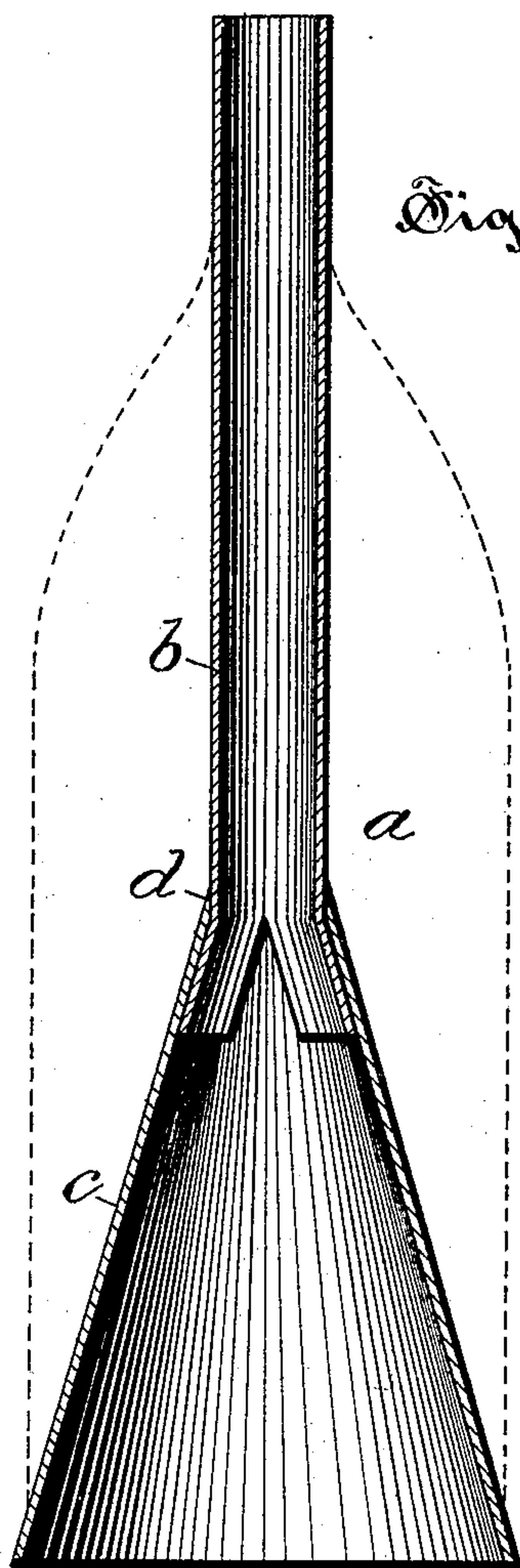


(No Model.)

J. SCOTT.
BOBBIN.

No. 398,002.

Patented Feb. 19, 1889.



Witnesses:

Nary R. Williams.
A. B. Jenkins.

Inventor,

John Scott,
by Simonds & Burdett,
attys.

UNITED STATES PATENT OFFICE.

JOHN SCOTT, OF WILLIMANTIC, ASSIGNOR TO THE WILLIMANTIC LINEN COMPANY, OF HARTFORD, CONNECTICUT.

BOBBIN.

SPECIFICATION forming part of Letters Patent No. 398,002, dated February 19, 1889.

Application filed July 13, 1888. Serial No. 279,903. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCOTT, of Willimantic, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in Bobbins, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

My invention relates to the class of devices adapted to serve as a form or spool on which thread or yarn is wound; and the object of my invention is to produce such a spool or bobbin that shall be simple and cheap in construction, and sufficiently strong to warrant its use in the mill, and also for transportation with the thread on it.

My invention consists in a cone-bobbin made up of a tubular center of paper or like material, a conical base of paper into which the tube extends to a plane near its base, and the braces that unite the tube to the inner surface of the cone; and it further consists in details of the bobbin, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a detail view, in central section, of a cone-bobbin of the prior art. Fig. 2 is a detail view, in central section, of my improved bobbin. Fig. 3 is a detail view, in cross-section, of the bobbin on plane denoted by line $x x$ of Fig. 2.

In the accompanying drawings, the letter a denotes a cone-bobbin as a whole that is made up of a cylindrical stem, b , and a cone-shaped or flaring base, c , the base and stem being hollow to adapt the bobbin to be placed and held upon a spindle for the purpose of winding yarn or thread upon it into a mass somewhat as outlined by the dotted line in Fig. 1. A cone-bobbin has been made prior to my invention of a paper tube joined at the point d to the upper part of a paper cone, substantially as illustrated in Fig. 1; but such bobbin has never come into use, and has been used only experimentally, for the reason that

it was not strong enough to stand the test of use and transportation.

The letter e denotes the tubular stem of my improved bobbin, and f denotes the cone, into which the tube extends to a plane near its base and to which it is secured at the line of junction g —as by means of glue—while the cross-braces $h h'$ are also secured—as by means of glue or other suitable means—to the inner wall of the cone and to that part of the tubular stem that extends within it. The stem and the cone are made, preferably, of paper-board, the stem being of sufficient strength to support the mass of thread and to stand the wear and handling in use in the mill and of transportation.

The braces $h h'$ are preferably disk-shaped, and are so firmly secured that they not only hold the cone to the tubular stem or center, but they also serve to prevent the crushing in of the cone.

As a result of this improved construction, I am able to produce a bobbin of great strength, lightness, and cheapness that is particularly durable both in use and transportation.

I claim as my invention—

1. A spool or bobbin consisting of a central tube of paper, a conical base of like material secured to the center, and the disk-shaped crosswise-brace that extends across the lower part of the base and is secured to the tube and the base, all substantially as described.

2. As an improved article of manufacture, a paper cone-bobbin made up of a central tube of paper, a paper cone into which the said tube extends to a plane near the bottom of the base, and the disk-shaped braces extending transversely of and within the base and secured to the base and to the tube, all substantially as described.

JOHN SCOTT.

Witnesses:

HENRY R. LINCOLN,
E. G. HATHEWAY.