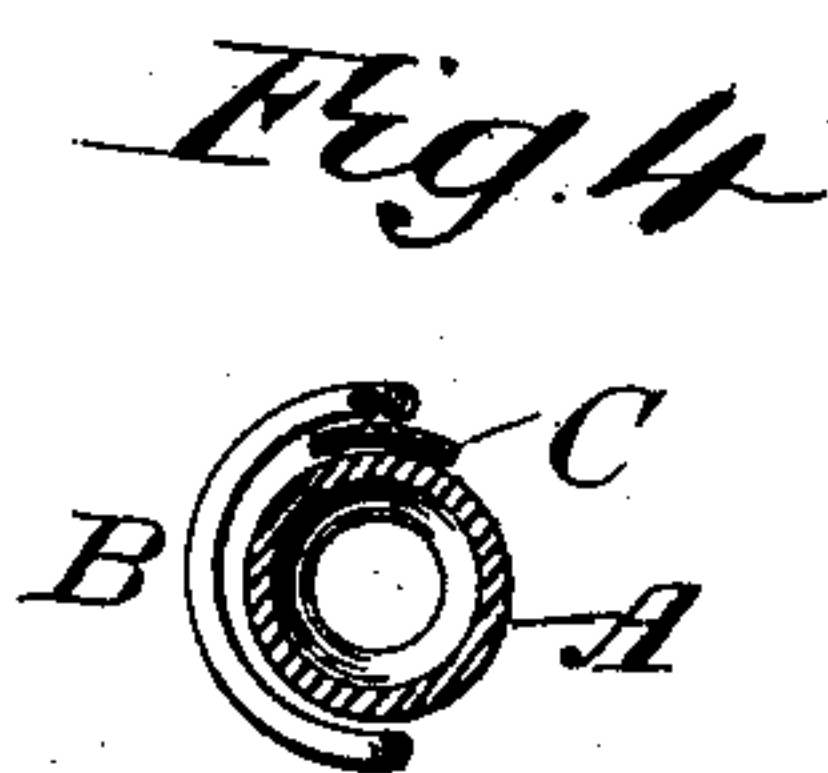
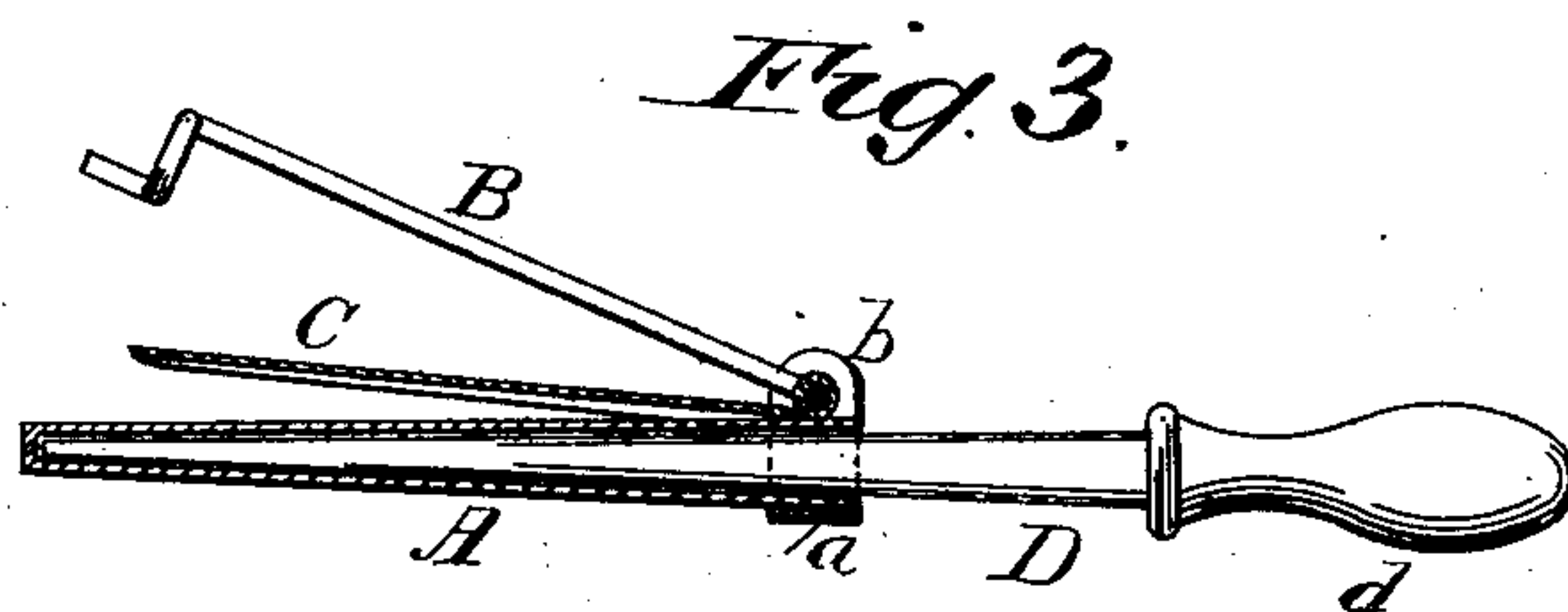
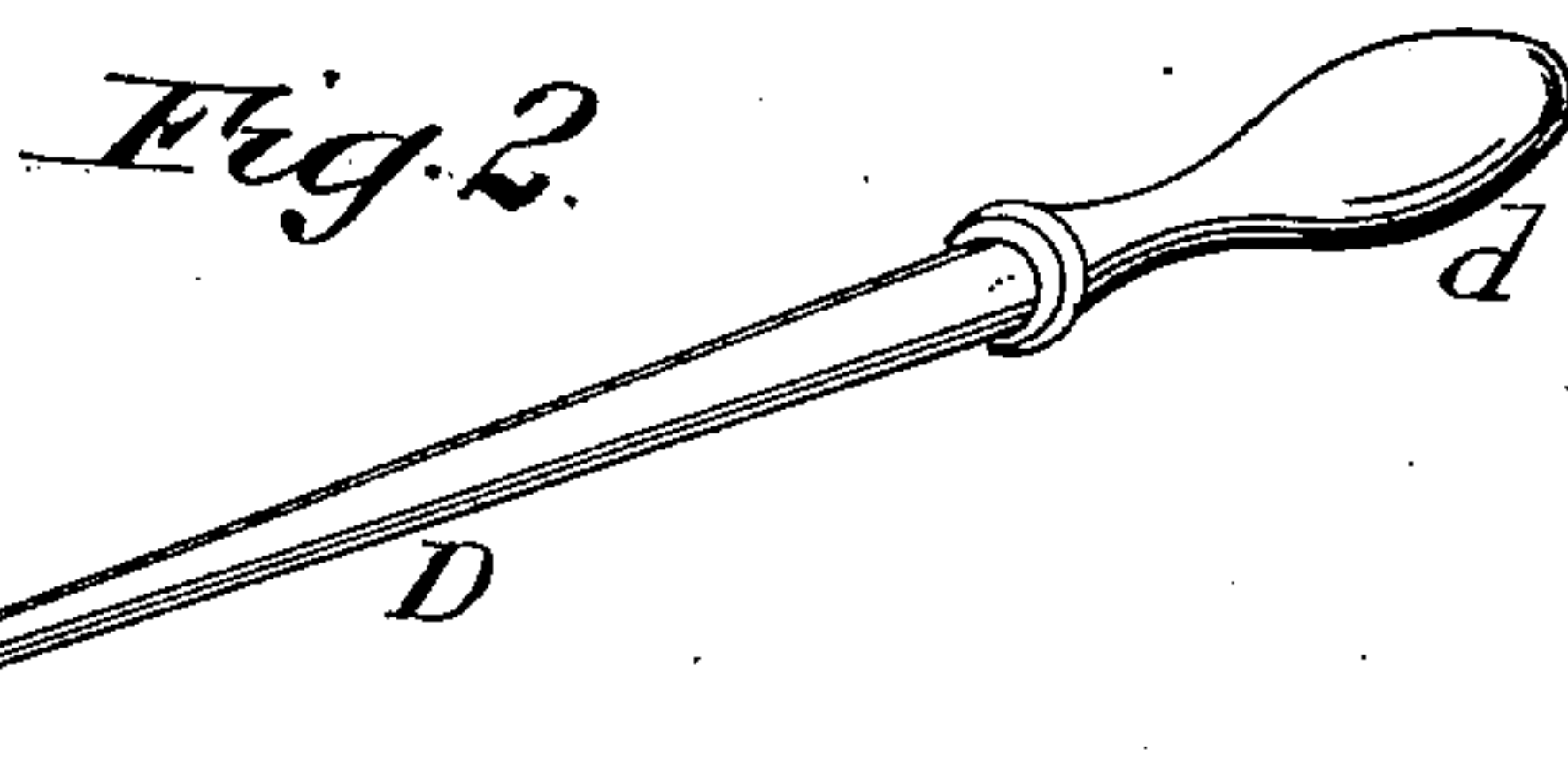
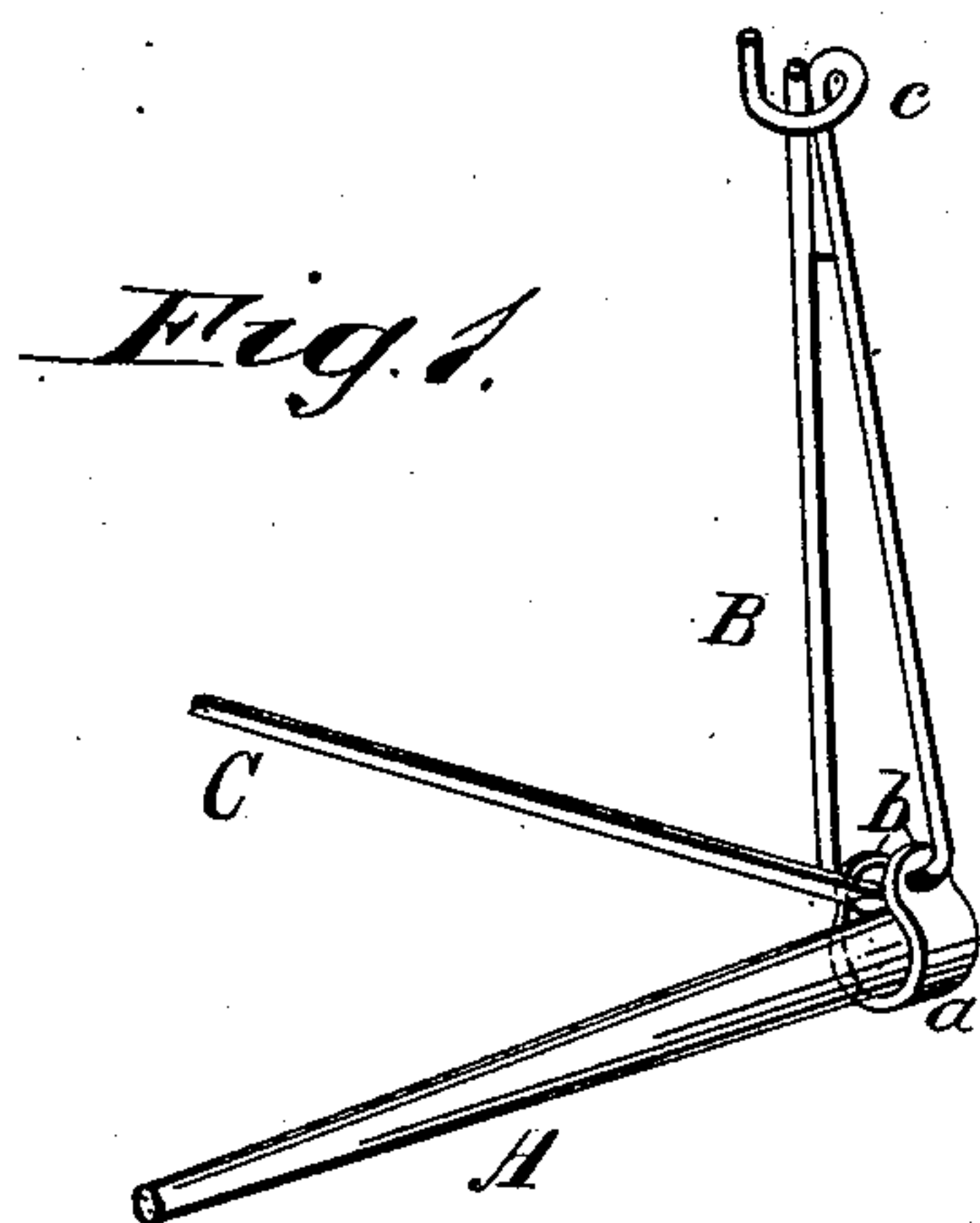


(No Model.)

W. M. CLEELAND.  
CURLING IRON.

No. 507,108.

Patented Oct. 24, 1893.



WITNESSES:

*A. M. Ardle,*  
*C. Sedgwick*

INVENTOR

*W. M. Cleeland*  
BY *Munn & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM MORRISON CLEELAND, OF GREAT FALLS, MONTANA, ASSIGNOR  
OF ONE-HALF TO THOMAS C. MOORE AND DURWARD E. RANDALL, OF  
SAME PLACE.

## CURLING-IRON.

SPECIFICATION forming part of Letters Patent No. 507,108, dated October 24, 1893.

Application filed January 6, 1893. Serial No. 457,431. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MORRISON CLEELAND, of Great Falls, in the county of Cascade and State of Montana, have invented  
5 a new and Improved Curling-Iron, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a perspective view of the tube  
10 and clamping device of my improved curling iron. Fig. 2 is a perspective view of the curling iron. Fig. 3 is a side elevation, partly in section, of the complete instrument; and Fig. 4 is an enlarged transverse section of the  
15 tube and clamping device.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to construct  
20 a curling iron in which the hair may be wrapped around the tube and secured before the heat is applied, thereby avoiding the danger of burning the hair.

The invention consists in the construction and arrangement of parts hereinafter described and claimed.  
25

The conical tube A, is formed of metal, and to the larger end thereof is attached a metallic strip *a*, which is curved around the tube A and allowed to project around the  
30 tube, forming ears *b*, which are perforated to receive the looped wire B, the two arms of which are brought together and soldered, one of the arms being prolonged and bent into a spiral curve *c*, the plane of which is approximately at right angles to the wire, the  
35 said curve forming a hook for engaging the smaller end of the conical tube A. Upon the wire B, and between the ears *b*, is pivoted a tongue C, which is of concavo-convex cross  
40 section adapted to the surface of the conical

tube A. The tongue C pivots on that part of the wire B which passes through the ears *b*.

The ends of the hair to be curled are placed under the tongue C, and the tube and the tongue are turned together, wrapping the hair  
45 around the said tube and tongue, and the wire fastener B is brought down upon it, and the curved end is sprung laterally and hooked around the smaller end of the conical tube A, thus holding the hair in place.  
50

The tapering iron D, shown in Fig. 2, is provided with a handle *d* of non-conducting material. The iron D is heated to the required temperature and inserted in the conical tube A, and the tube being heated by contact with the iron D heats the hair wound  
55 thereon to the temperature required to set it and cause it to retain the form imparted to it by the tube. If desired, the iron D may be removed from the tube and the hair allowed  
60 to remain wound upon the tube A until it is cool.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—  
65

A hair curler consisting in the conical tube A, the clip *a* on the larger end of the tube and having parallel ears *b* the fastener B formed of a wire passed through the ears, with its ends secured together and one of its  
70 extremities bent into a hook *c* to be sprung laterally around outer end of the tube A, and the longitudinally extending tongue C pivoting on that part of said wire between said ears and locked to the tube by said fastener,  
75 substantially as set forth.

WILLIAM MORRISON CLEELAND.

Witnesses:

JNO. MONTGOMERY,  
CHAS. W. POMEROY.