## W. G. CUTLER.

Girders.

No. 133,306.

Patented Nov. 26, 1872.

Fig. 1.

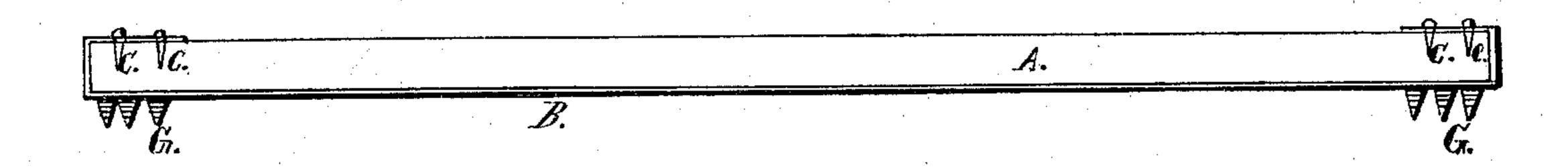
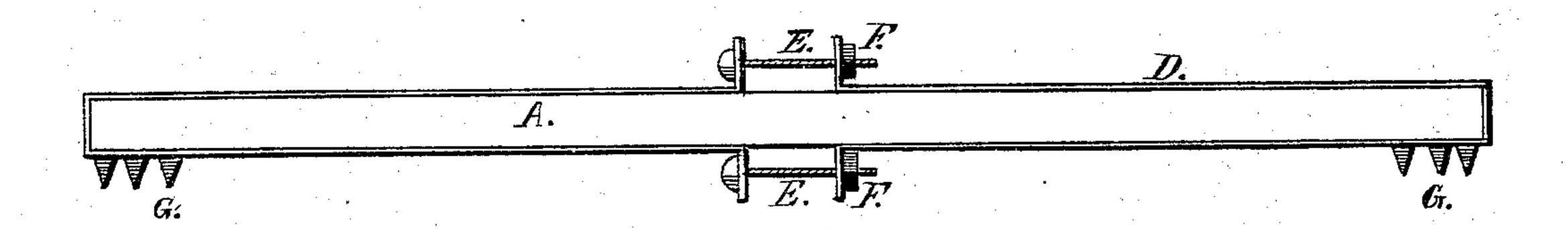


Fig. 2.



1,2,3,4,5,6,7,8 Fect.

Witnesses. F. E. Smith Jno-C. Fairbourn Milliam Glutter. Milliam Glutter My Styris fact

## UNITED STATES PATENT OFFICE.

WILLIAM G. CUTLER, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES D. PIERCE AND JOHN B. SMITH, OF SAME PLACE.

## IMPROVEMENT IN GIRDERS.

Specification forming part of Letters Patent No. 133,306, dated November 26, 1872.

To all whom it may concern:

Be it known that I, WILLIAM G. CUTLER, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Beams or Girders, of which the following is a specification:

Nature and Object of the Invention.

My invention is for a beam or girder made of wood, and banded with iron or other material for the purpose of strengthening it, and thus make all such work stronger and lighter.

Description of the Drawing forming part of this Specification.

Figure 1 is a beam or girder of wood, with a band on its under side and lapped round its ends and secured with spikes or bolts; and Fig. 2 is a beam or girder with the band made in two pieces and passing clear round it, with screw-bolts to tighten up the bands.

General Description.

A is the beam or girder, of wood, thirty feet in length, three inches thick, and twelve inches wide. It may be longer or shorter, thicker or thinner, wider or narrower. It is intended for

this beam to sit up edgewise. B, the band which strengthens it; C, the spikes or bolts with which it is secured to the beam. D D are straps which pass round a beam or girder. E E are screws for tightening up the bands; F F, nuts on the ends of the screws. G are teeth in the bands at the ends of the beam or girder, where the ends rest, to prevent them from slipping and to hold them firmly in position.

This invention is for bridges and for buildings, and for every kind of beam or girder and stringers of wood, wherever used. It will be very strong, and take the place of truss-work in a great many places, and allow of using wood much lighter than that used in the ordinary way.

I claim as my invention—

A beam or girder with a band or plate of iron on its under side and running its whole length, and lapping upward over its ends, and secured, as described, so as to give it strength, substantially as set forth.

WILLIAM G. CUTLER.

Witnesses:

J. B. SMITH, B. L. Corss.