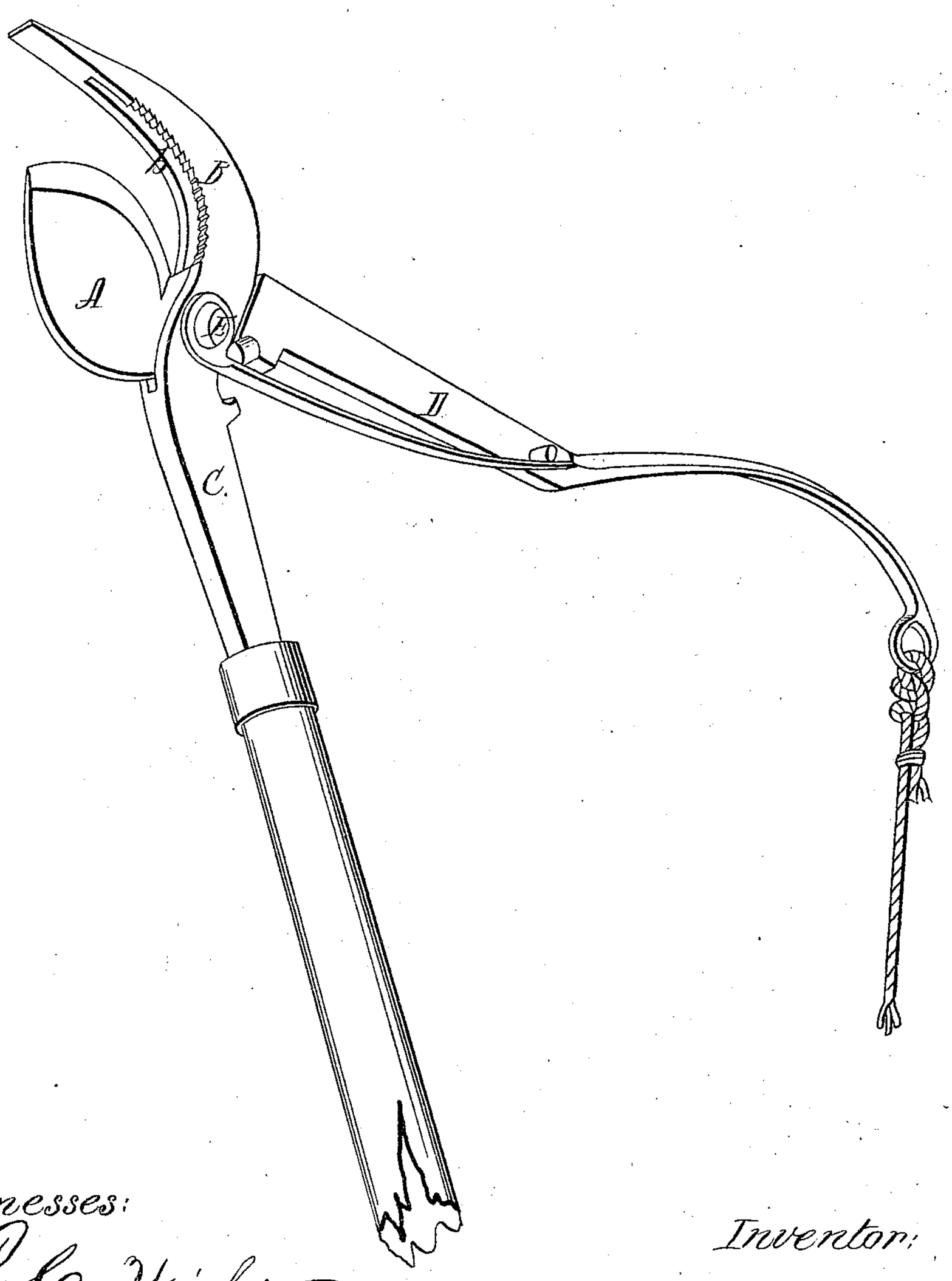
F. Bender,

Pruning Implement.

No. 59,168. Patented Oct. 30, 1866.



Witnesses:

R C Weightman

A. Tanner

Inventor:

Frederick Bender

UNITED STATES PATENT OFFICE.

FRIEDRICH BINDER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PRUNING-SHEARS.

Specification forming part of Letters Patent No. **59,168,** dated October 30, 1866.

To all whom it may concern:

Be it known that I, FRIEDRICH BINDER, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and useful Improvement in Pruning-Shears; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable one skilled in the art to which the invention appertains to make use of it, reference being had to the accompanying drawing, which forms a part of this specification, and in which my invention is represented by a perspective view.

In these shears the cutting-jaw has a convex edge, and the holding-jaw a serrated concave face with a central slot, into which the cutting-edge projects. The convex-edged blade works into the concave jaw in such a manner as to bring the force upon the jaws near the pivot, not pushing the object outward toward the point. By the construction of the double holding-jaw the object is held on each side of the plane of separation, preventing twisting and straining of the blades.

In the usual shears, where two cutting-faces pass each other, there is a constant tendency where much power is exerted to twist upon the limb which is being cut, bending the blades outward from each other in a direction wherein they are the least able to withstand a strain; but in my pruning-shears, the subject of this specification, the limb is held squarely by one jaw while the other divides it.

In the drawings A B are the two jaws, which are prolonged into tangs for insertion into the handles C D. E is the pivot upon which the jaws vibrate, and is made removable by loosening the nut. The cutting-jaw A has a convex blade, and it works in a slot, *b*, in the holding-jaw B.

In cutting a heavy limb it is especially necessary to grasp it near the pivot, so as to exert the greatest possible leverage upon it. The cutting-blade then enters the salient curved edge, pressing through the wood, and eventually protruding into the space *b* between the two faces of the holding-jaw.

Having described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The convex-edged knife working in a slot in the concave holding-jaw, and operating substantially as described.

FRIED. BINDER.

Witnesses:

ANDREW MERKER,

MICHAEL PREISZ.