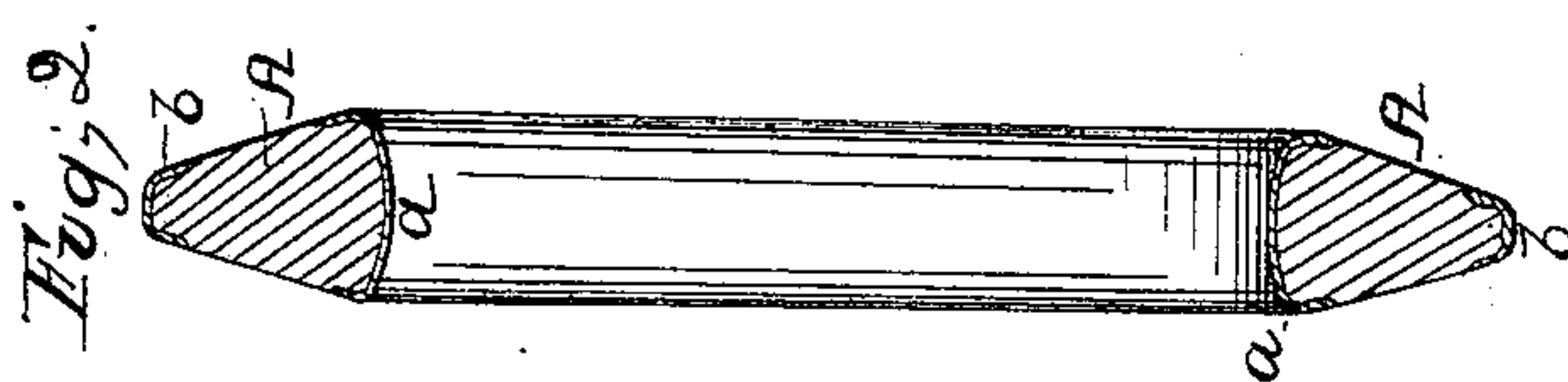
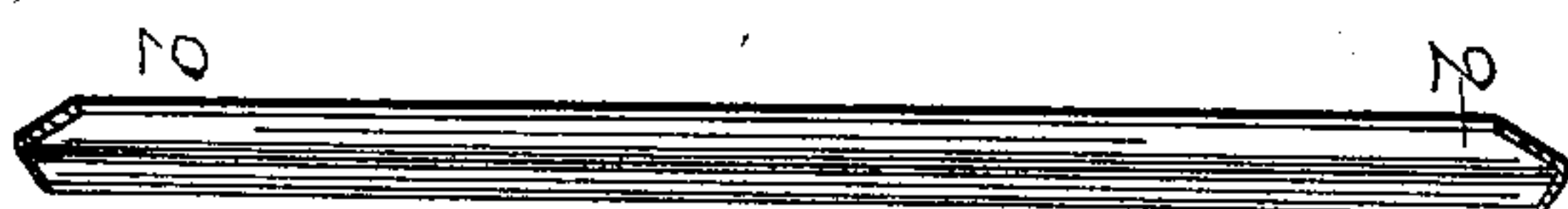
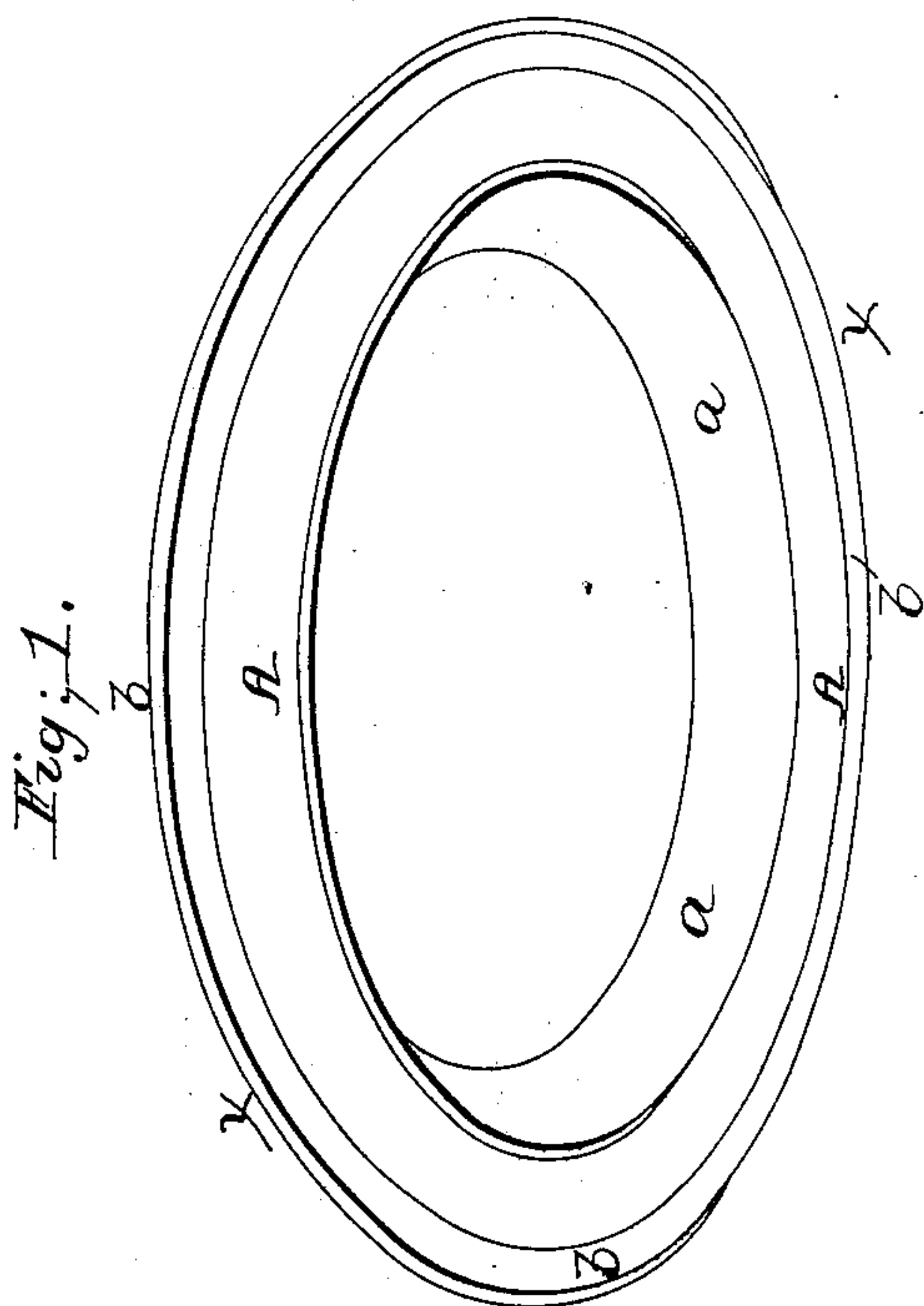


G. T. Bushnell,
Harness Trimmings,
No 26,086, *Patented Nov. 15, 1859.*



UNITED STATES PATENT OFFICE.

GEORGE T. BUSHNELL, OF BIRMINGHAM, CONNECTICUT.

MARTINGALE-RING.

Specification of Letters Patent No. 26,086, dated November 15, 1859.

To all whom it may concern:

Be it known that I, GEORGE T. BUSHNELL, of Birmingham, New Haven county, Connecticut, have invented a certain new and
5 useful Improvement in Martingale-Rings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, in which—

10 Figure 1, represents a perspective view of a martingale ring embracing my improvement; Fig. 2, represents a transverse section on the line *x, x*, of Fig. 1; and Fig. 3, represents a transverse section of the exterior band on an enlarged scale.

The object of my improvement is the production of a light, strong and durable martingale ring. These rings were formerly made of metal, but now they are generally
20 constructed of ivory, wood, vulcanized rubber, or other light materials, the metal ring being found too heavy. But rings made of these light materials are not sufficiently strong to bear the strain to which they are subjected. They are moreover liable to crack
25 from blows, while those made of ivory and wood are liable to split or fracture on the exterior surface in seasoning. In order to give greater strength to these rings, the inner surface has been lined or covered with
30 a thin metal. This lining but slightly increases the strength of the ring, and, if increased in thickness adds so much to its weight as to be as heavy as the metal martingale ring. The function of this lining is
35 to prevent the abrading of the inner surface more than to increase the strength of the ring. In order to increase the strength of the ring without materially adding to its weight, I cover the exterior surface with a
40 thin metallic band, the outer edges of which are turned down on the sides of the ring, which is made thinner at the exterior than at the interior edge, in order that the band
45 may have firm hold upon the ring and be prevented from turning or slipping off, and thus protect and strengthen the ring on the exterior, by which means the ring is pre-

vented from cracking or abrading, and is greatly increased in strength and durability 50 without additional weight being added thereto.

My improved martingale ring is represented in the accompanying drawing, and consists of an ivory, wood or vulcanized rubber ring (A,) which is rounded upon the interior surface, and the sides sloped or beveled off toward the exterior edge, making the ring much thinner at the exterior edge than at the interior. The interior surface is 60 covered by a cylindrical metallic plate of brass, copper or other metal (*a*), the edges of which are bent around the curved surface of the interior of the ring by which it is prevented from turning or being drawn out 65 laterally. The exterior edge is covered by a metal band (*b*), fitting closely to its surface, and the edges of this band are sprung down on the sides of the ring, thus covering the ring with a hollow metallic 70 band with elongated sides of great strength and stiffness in proportion to the amount of metal used. This band takes firm hold upon the outer edge and sides of the ring, and adds greatly to its strength and durability, 75 prevents the exterior surface from cracking, and protects it from abrasions and blows without materially increasing its weight.

Having thus described my improvement in martingale rings, what I claim as a new article of manufacture, and desire to secure by Letters Patent is—

A martingale ring whose exterior edge is thinner than the interior in combination with an exterior band whose edges extend 85 down upon the sides of the ring, forming a hollow or corrugated band on its surface, substantially as described for the purposes as aforesaid.

In testimony whereof I have subscribed 90 my name.

GEORGE T. BUSHNELL.

Witnesses:

SHELDON SMITH, Jr.,
JOSEPH P. CANFIELD.