

Sheet 1
2 Sheets

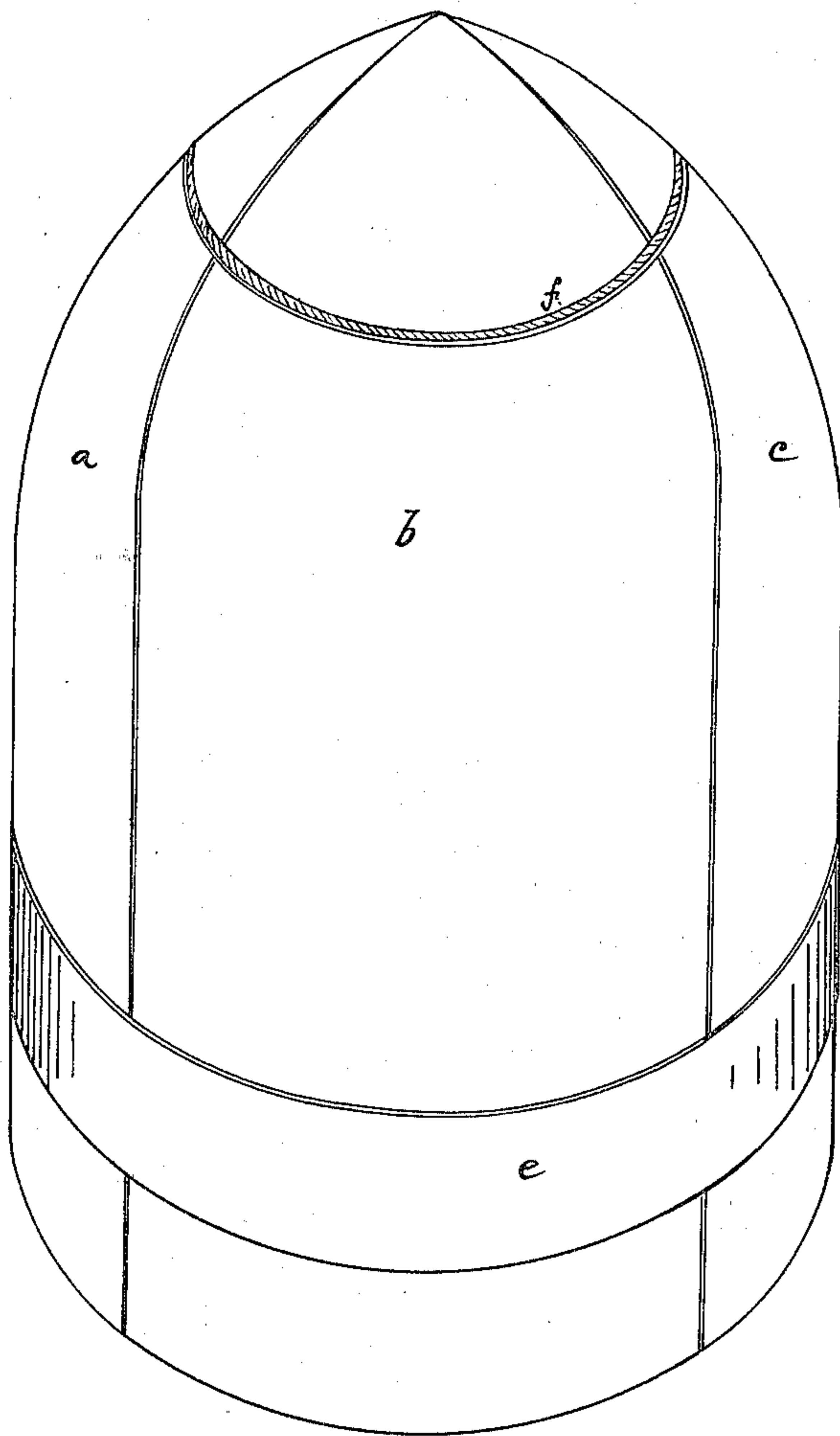
A.B. Ely. Sheet 1 of 2 Sheets.

Projectile.

N^o 34626.

Patented Mar. 11, 1862

Fig. 1.



Witnesses

Thos. R. Rouch
P. C. Dechenbach

Inventor

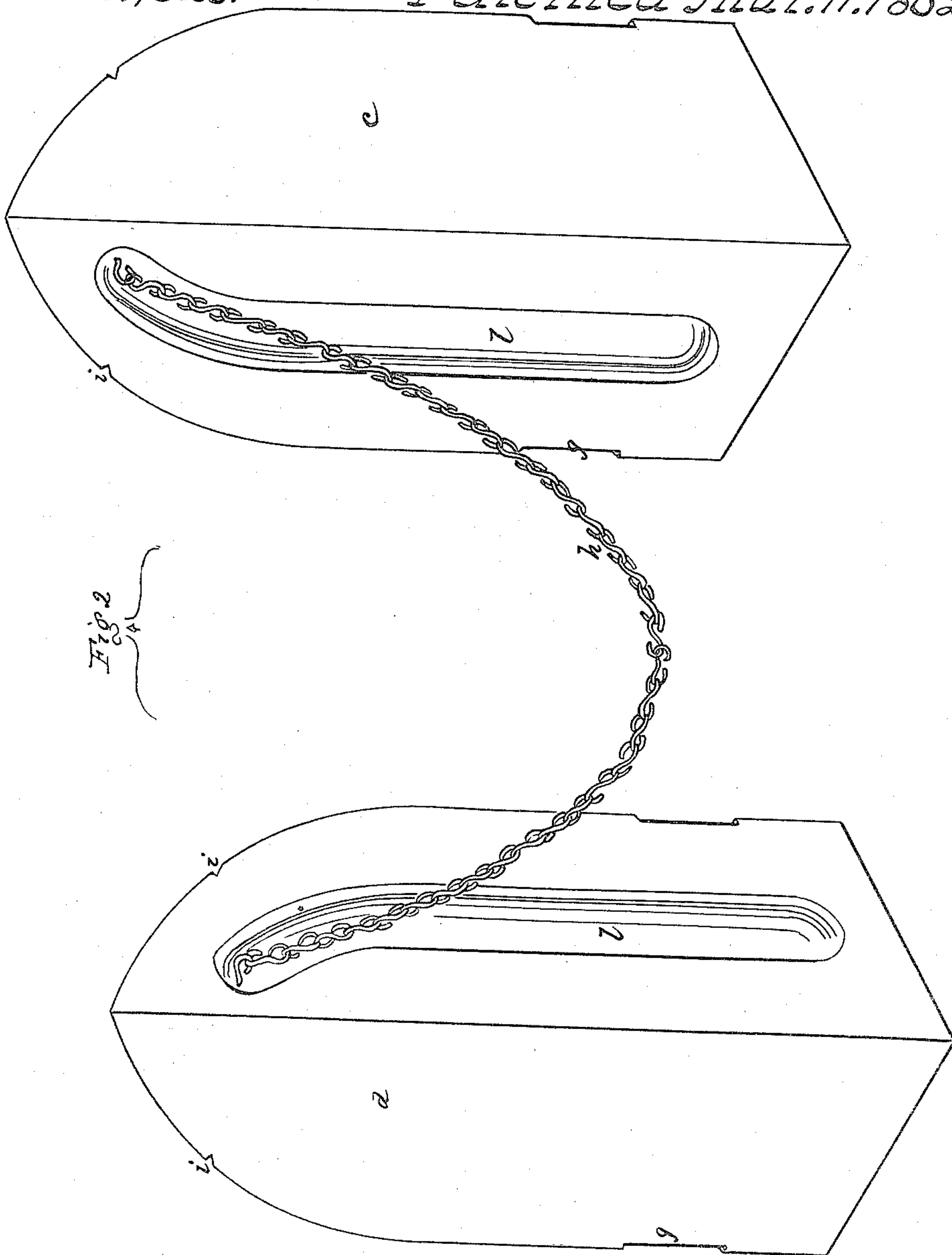
Alfred V. Ely

A. B. Ely Sheet 2 of 2 Sheets.

Projectile.

N^o 34626.

Patented Mar. 11. 1862.



Witnesses.

Thos. R. Roach
P. C. Teschmacher

Inventor

Alfred V. Ely

UNITED STATES PATENT OFFICE.

ALFRED B. ELY, OF NEWTON, MASSACHUSETTS.

IMPROVEMENT IN CHAIN-SHOT FOR ORDNANCE.

Specification forming part of Letters Patent No. 34,626, dated March 11, 1862.

To all whom it may concern:

Be it known that I, ALFRED B. ELY, of Newton, in the county of Middlesex and State of Massachusetts, have invented an Improved Chain-Shot, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of my improved shot closed and ready to be inserted into a gun; Fig. 2, a view of two of the detachable sections of which the shot is composed.

Chain-shot, as ordinarily fired from a smooth-bore cannon, consist of two spherical shot connected together by a strong chain, the chain occupying a position in the bore of the gun, between the two shot. It will not answer, however, to fire such shot from a rifled cannon, as the shot and chain coming in contact with the grooves of the gun would deface the grooves. The object of my present invention is to produce a chain-shot suitable for firing from a rifled cannon; and my invention consists of a cylindro-conoidal or other convenient form of shot, which is divided into two or more sections, the sections being connected in pairs by a chain from one section to the other of a pair, a suitable recess being formed in one or both of the sections to receive the chain when the sections are placed in contact with each other, a band of canvas or other suitable packing being used to hold the sections in place while the shot is loaded or transported, and which also serves as a packing to protect the grooves of the gun. This band or packing, leaving the shot on the discharge of the gun, permits the sections to separate one from the other to the length of the connecting-chain.

That others skilled in the art may understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, Fig. 1 represents a cylindro-conoidal shot, which is divided longitudinally into four sections, *a b c d*. These

when placed together are held in position by a canvas band, *e*, and by a thin wire or cord, *f*, which is bound tightly around the upper end of the shot in a groove, *i*. The band *e* is partly embedded in a recess, *g*, formed around the cylindrical part of the shot, it being intended that this band shall project beyond the surface of the shot, and serve as a packing to protect the grooves of a rifled gun from contact with the shot. (In practice the shot *e* will be made wider, and felt or other suitable material may be employed.) The sections—two of which are shown detached in Fig. 2—are coupled in pairs by a chain, *h*, which, when the sections are brought into contact with each other, lies part in each recess *l*, formed in the flat face of the section.

The form of this shot, the number of sections into which it is divided, and also the form and material of the band or packing, may be varied without departing from the spirit of my invention, these requisites, however, being preserved—viz., that the sections shall be of such a size and form that they may contain the connecting-chains between them when they are brought together, and may, when closed into one compact body, present such a form as can be conveniently held together by the band or packing which protects the grooves.

I do not claim, broadly, the sectional projectile which has its parts connected in pairs by a chain contained within the sections or within the projectile; but

What I do claim as my invention, and desire to secure by Letters Patent of the United States, is—

The projectile constructed in sections held together by bands that are to be ruptured by the explosion of the charge of the gun, and this only when the sections are held by a chain contained within the projectile.

ALFRED B. ELY.

Witnesses:

THOS. R. ROACH,

P. E. TESCHEMACHER.