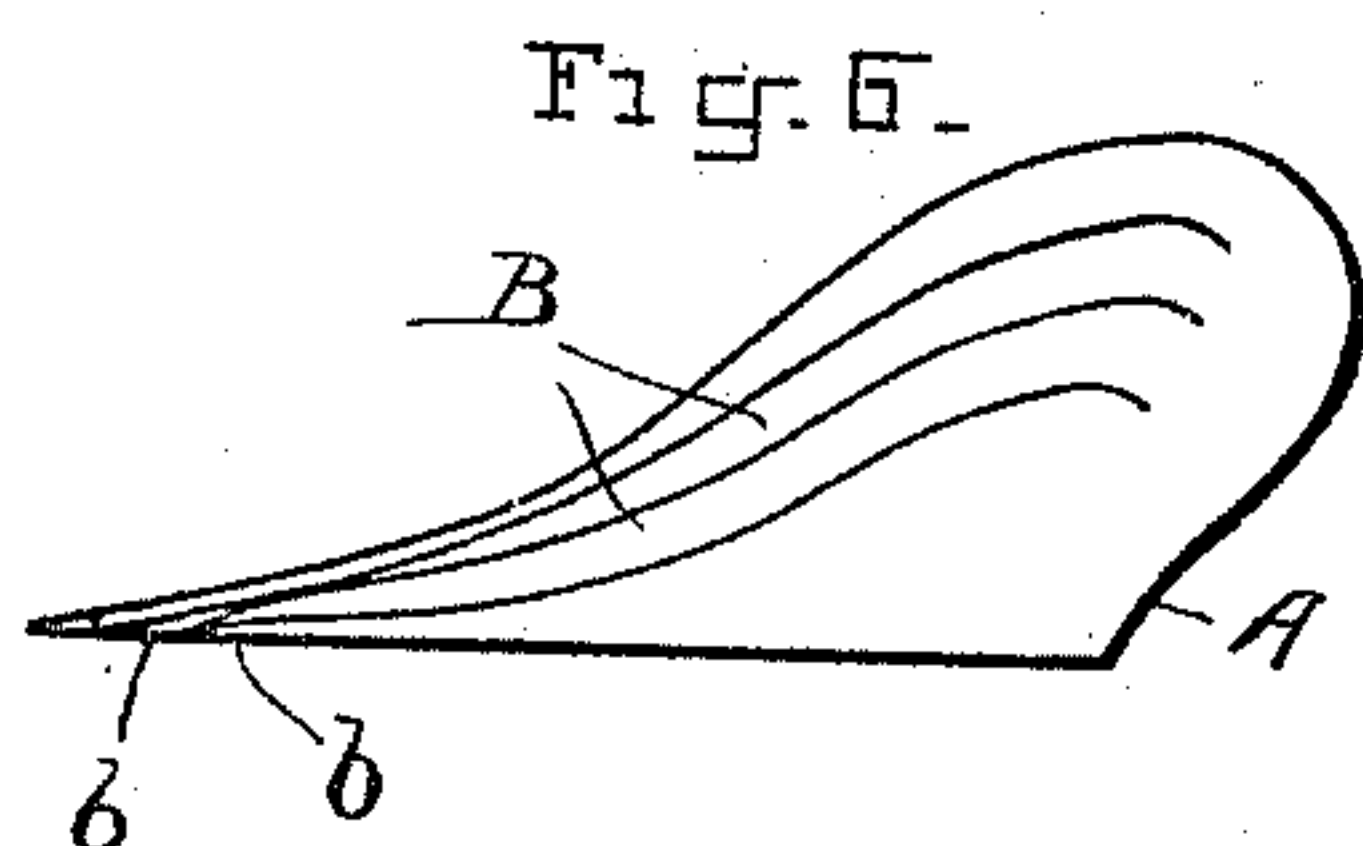
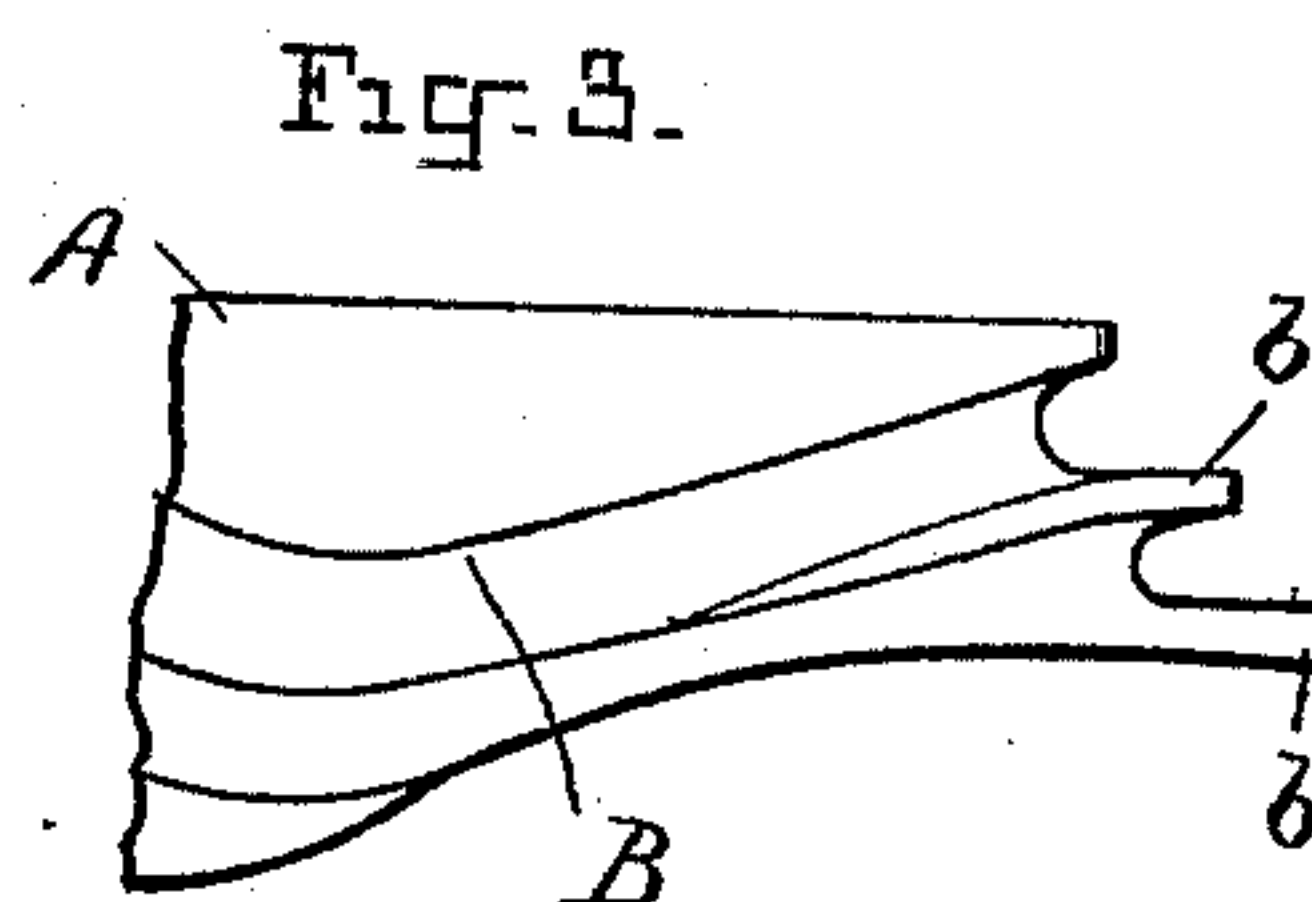
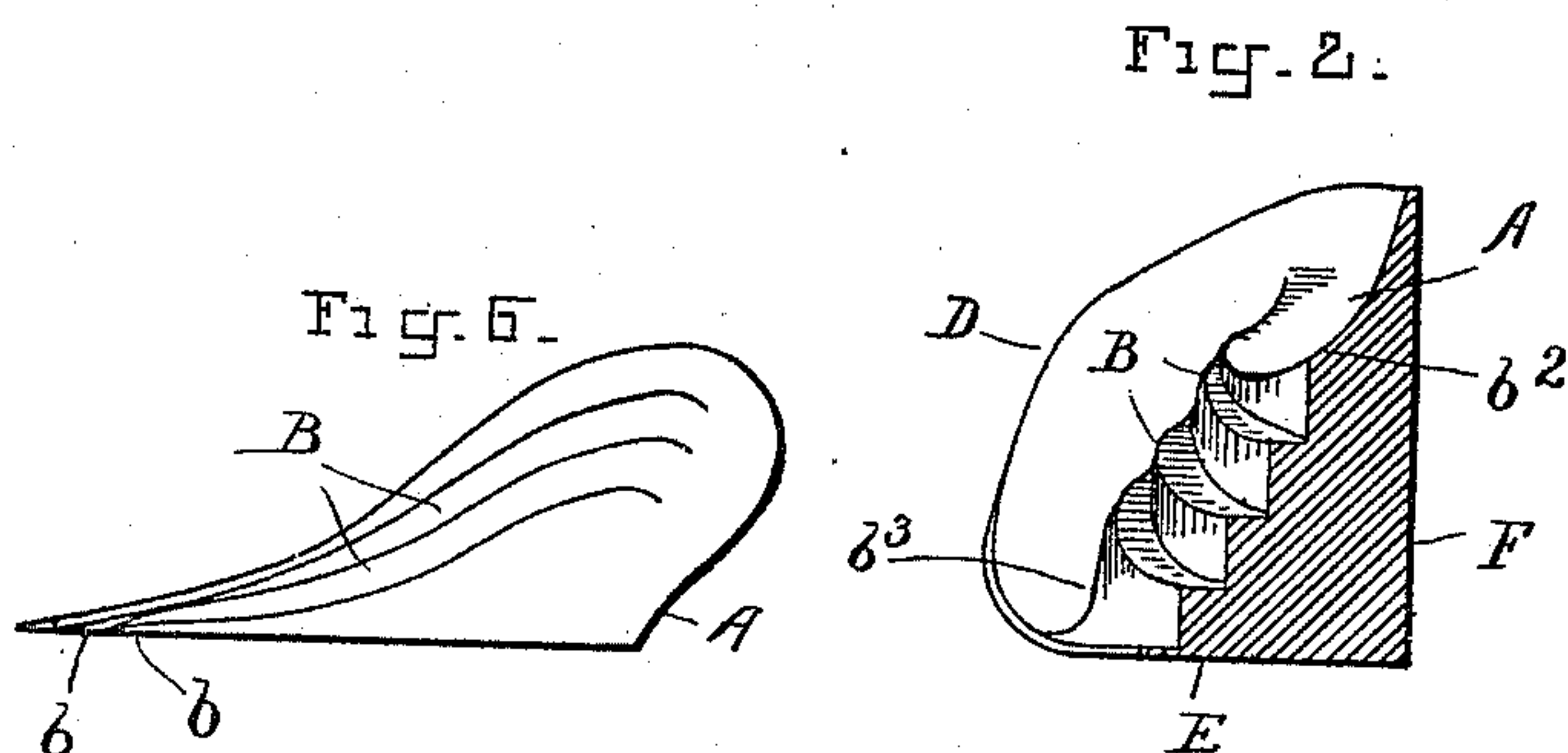
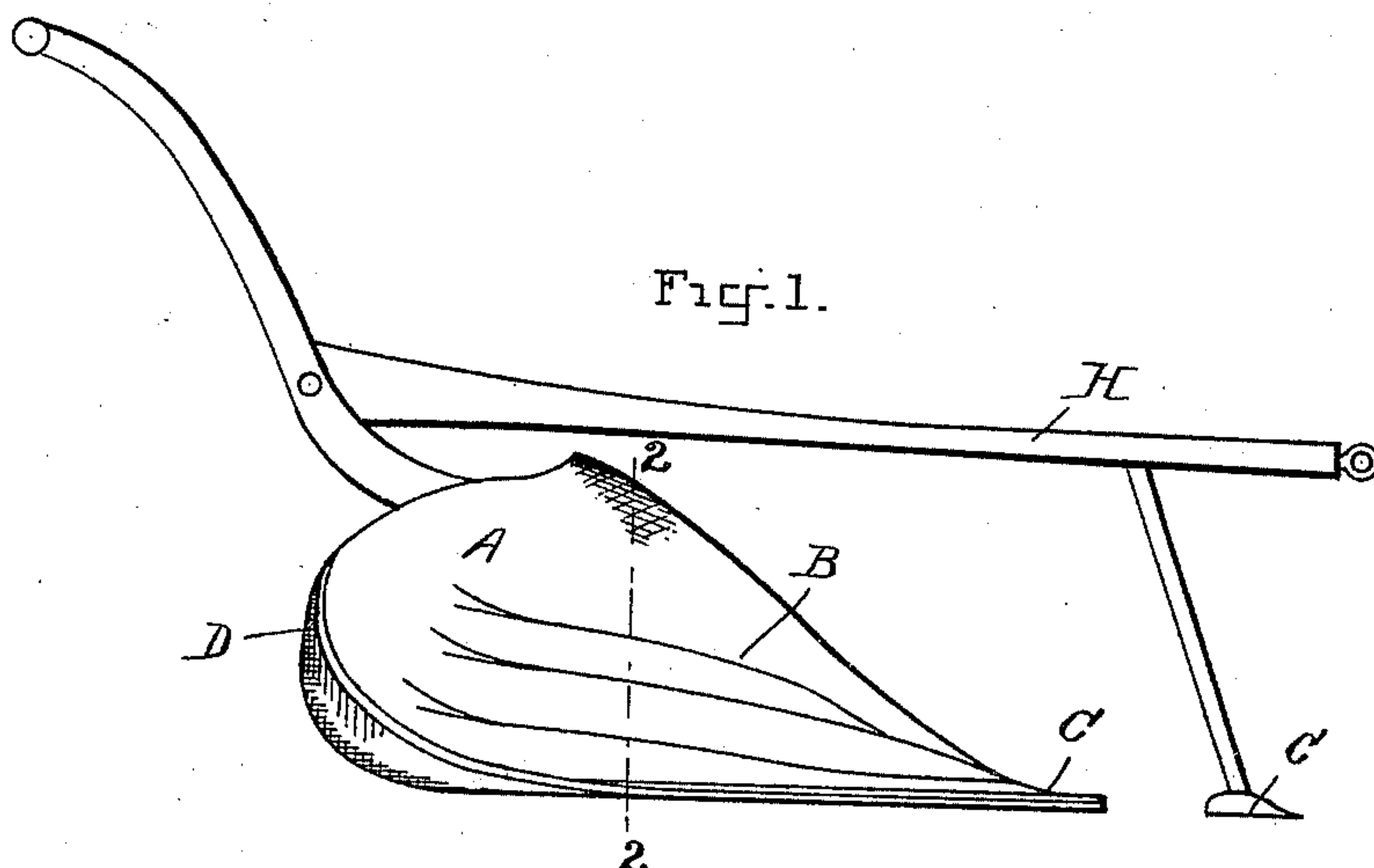
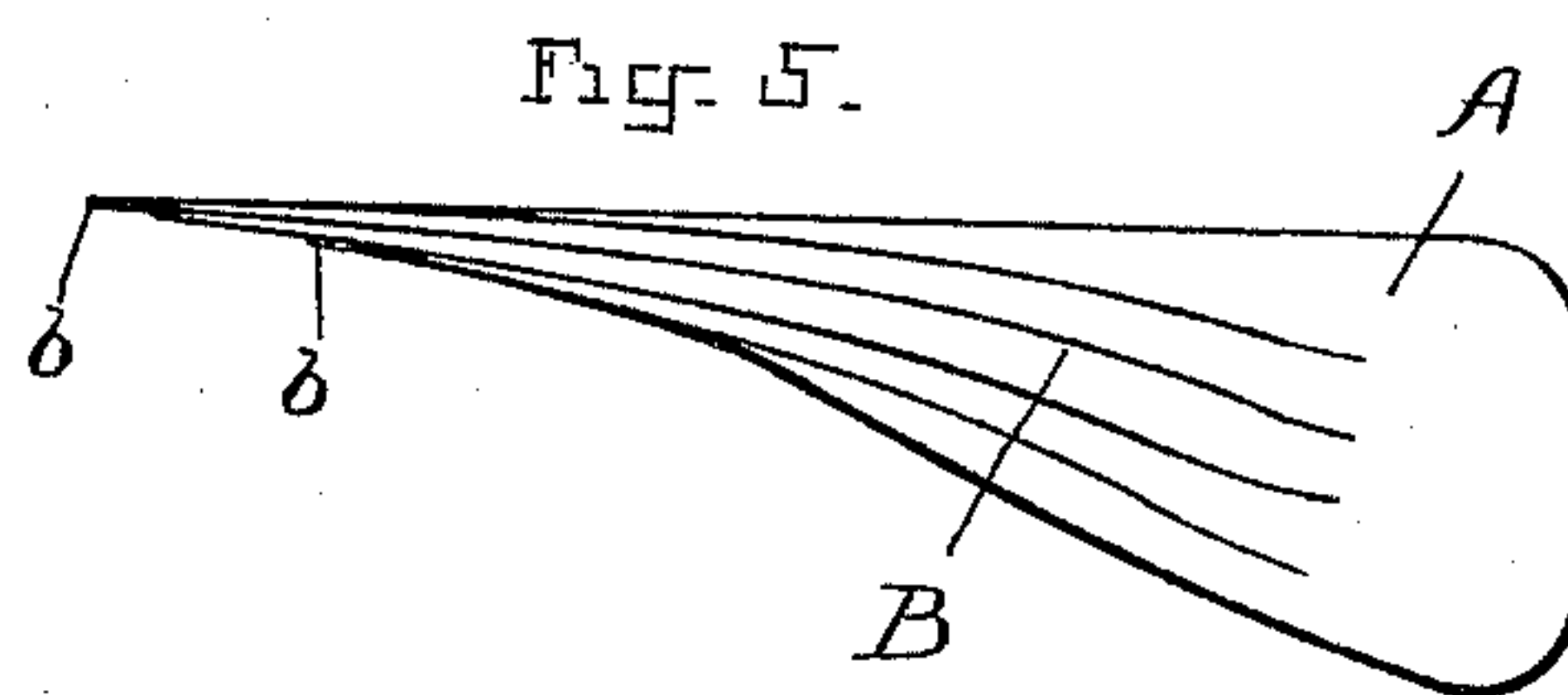
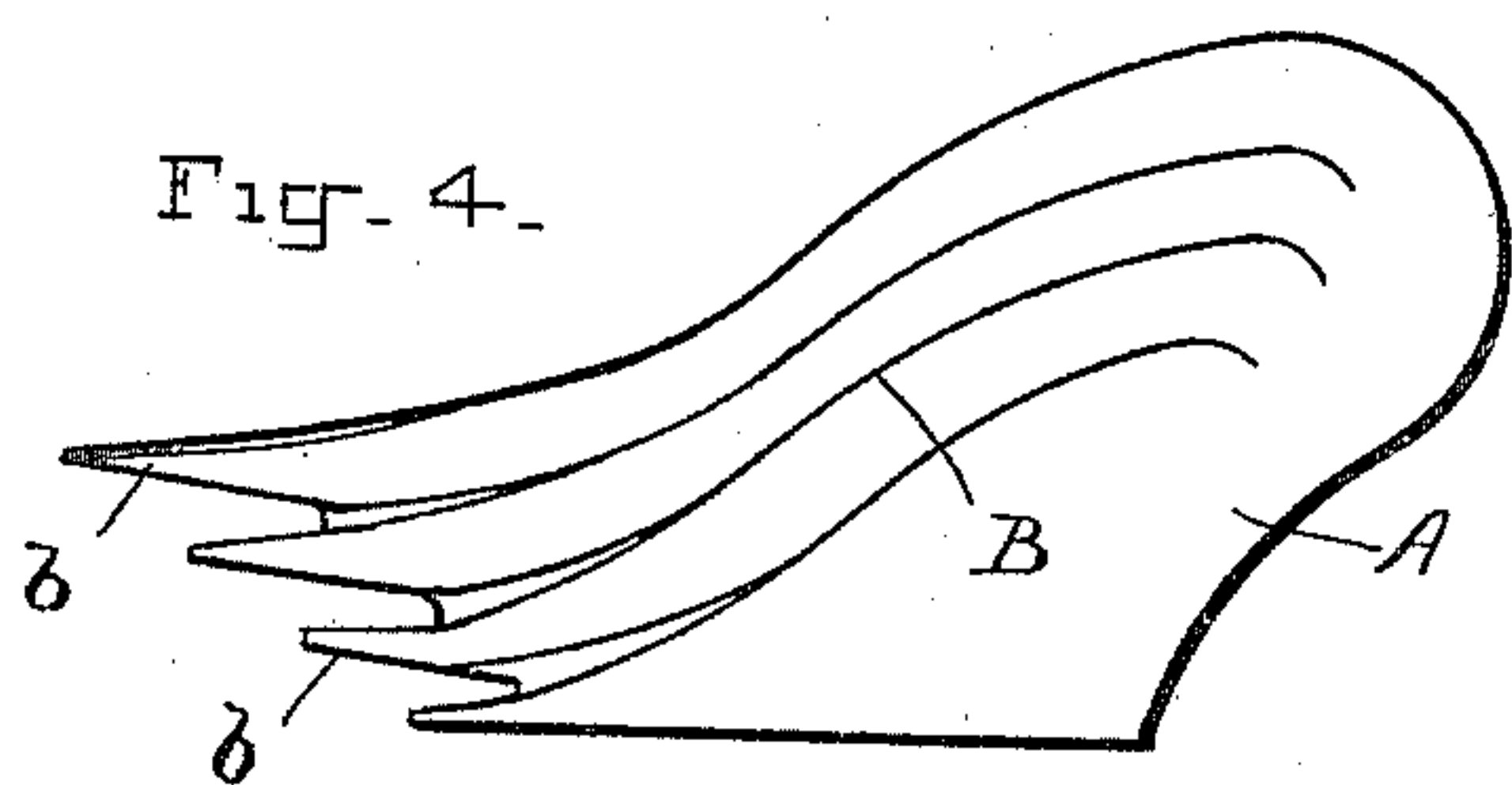


(No Model.)

H. CHESHER & H. RANDOLPH.  
PLOWSHARE.

No. 584,493.

Patented June 15, 1897.



WITNESSES:

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BY  
*Edgar Tate*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HARRY CHESHER AND HARVEY RANDOLPH, OF RICHMOND, PENNSYLVANIA.

## PLOWSHARE.

SPECIFICATION forming part of Letters Patent No. 584,493, dated June 15, 1897.

Application filed February 5, 1896. Serial No. 578,088. (No model.)

*To all whom it may concern:*

Be it known that we, HARRY CHESHER and HARVEY RANDOLPH, citizens of the United States, and residents of Richmond, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Plowshares, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to plowshares, and particularly to the moldboard thereof; and the object of the invention is to provide a moldboard with a plurality of ribs which extend from the point of the share backwardly and upwardly and which are formed in a correspondingly-formed central raised portion of the moldboard, which extends from the point of the share backwardly to near the rear end of the moldboard, and the object of which is to break up and divide the earth to throw it off of the moldboard, so as to form a level surface, and to decrease the friction in deep plowing.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of a plow, showing also our improved moldboard and share; Fig. 2, a transverse section of the moldboard on the line 2 2; Fig. 3, a plan view of the forward end of the moldboard and share; Fig. 4, a side view of a modified form of moldboard which is intended for deep plowing; Fig. 5, a plan view thereof, and Fig. 6 a view similar to Fig. 4 of another form of construction.

In the practice of our invention we provide a moldboard A, which may be composed of any desired material, and the surface thereof is provided with a plurality of ribs B, which extend from the share C backwardly and upwardly along the surface of the moldboard, as shown in Figs. 1 and 2, and the rear ends of which are also slightly curved upwardly, as shown in Fig. 1, and the rear end of the moldboard is provided with an outwardly-directed curved flange or rim D, extending

from the base C upwardly to the portion A, as is shown in Figs. 1 and 2.

The ribs B are of the form in cross-section shown in Fig. 2, the upper sides of all except the upper rib being substantially horizontal in cross-section and the outer side thereof being vertical except at the extreme point where the upper sides of the ribs are formed into grooves, as shown at *b* in Fig. 3, and the upper side of the upper rib is inclined or curved upwardly, as shown at *b*<sup>2</sup>, and the outer side of the lower rib is inclined outwardly and downwardly near the rear portion thereof, as shown at *b*<sup>3</sup>. The object of this formation of the moldboard is to break up and finely divide the earth and also to throw the same off of the moldboard in such manner as to produce a level surface, and the bottom of our improved moldboard and the landside thereof may be straight, as shown at E and F, respectively, or of any desired form. We may also provide a pilot G, which is connected with the beam H of the plow in the usual manner, but this feature is immaterial and forms no part of our invention.

The object of the modification shown in Fig. 4 is to provide means to break up the earth or sod and at the same time decrease the friction on the moldboard by distributing the power that is employed to pull the same through the ground in the manner heretofore described, and this object is accomplished by a series of ribs B, somewhat similar to those of Fig. 1, which are provided with points *b*, which are arranged in such manner that they relieve each other by reason of the fact that the earth is first broken by the upper point or projection and removed by the corresponding rib or flange.

The successive points or projections and corresponding ribs or flanges are also so arranged that each successive point or projection enters the ground lower than the one above it, and the soil is thus cut and raised or thrown over in layers or sections, and in this manner the ground may be plowed to any desired depth.

It will be understood that the principle of construction is the same in this case as in



the construction shown in Fig. 1, but the construction shown in Fig. 4 possesses many advantages over that shown in Fig. 1, and this is especially true in breaking up sod and  
5 other stiff and compact soils, and by means of this construction the usual pilot may be dispensed with, the upper point, projection, or cutter, whichever it may be termed, taking the place thereof and being so arranged  
10 that it cuts only where required.

In the construction of this plowshare we prefer to have the projecting points or rib ends about three inches apart, so that each one may have about three inches of soil to  
15 break and turn over, and to make each successive point from the bottom up project a predetermined distance forward of the one below it, as indicated in Fig. 4. By this construction we not only break up sod, but we  
20 reduce the friction to a minimum and are enabled to plow much deeper than with plows of ordinary construction.

Our improved moldboard is well adapted to accomplish the result for which it is intended, and the utility thereof will be understood by all those familiar with this class of devices, and it is evident that other changes  
25 in and modifications of the form thereof as herein shown and described may be made  
30 without departing from the spirit of our invention or sacrificing its advantages, and we

reserve the right to make all such changes therein and modifications thereof as fairly come within the scope of the invention.

Having fully described our invention, we  
35 claim as new and desire to secure by Letters Patent—

1. As a new article of manufacture a plowshare having a moldboard provided with a plurality of upwardly and backwardly extending ribs, said ribs having their rear ends curved upwardly and an outwardly-directed curved flange secured to and integral with said moldboard at the rear thereof; all of the said parts being combined substantially as  
45 described.

2. A plowshare having formed integrally therewith a plurality of ribs which extend from the points of the share backwardly and upwardly to the rear end of the share, said  
50 ribs being extended to form separate points, one above the other on front of said share, substantially as herein shown and described.

In testimony that we claim the foregoing as our invention we have signed our names, in  
55 presence of the subscribing witnesses, this 1st day of February, 1896.

HARRY CHESHER.

HARVEY RANDOLPH.

Witnesses:

H. B. LUFFBERRY,

ROBERT A. TAYLOR.