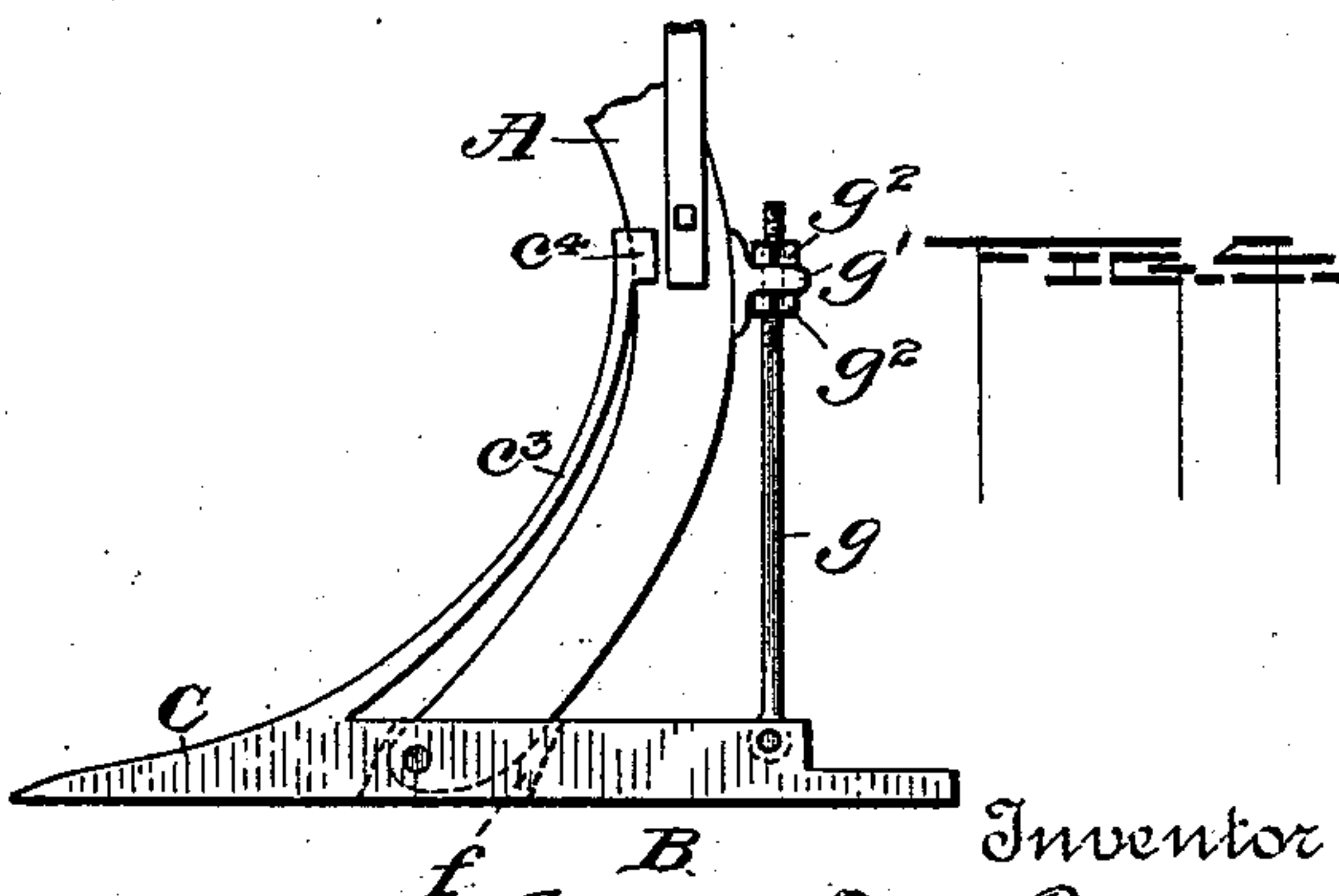
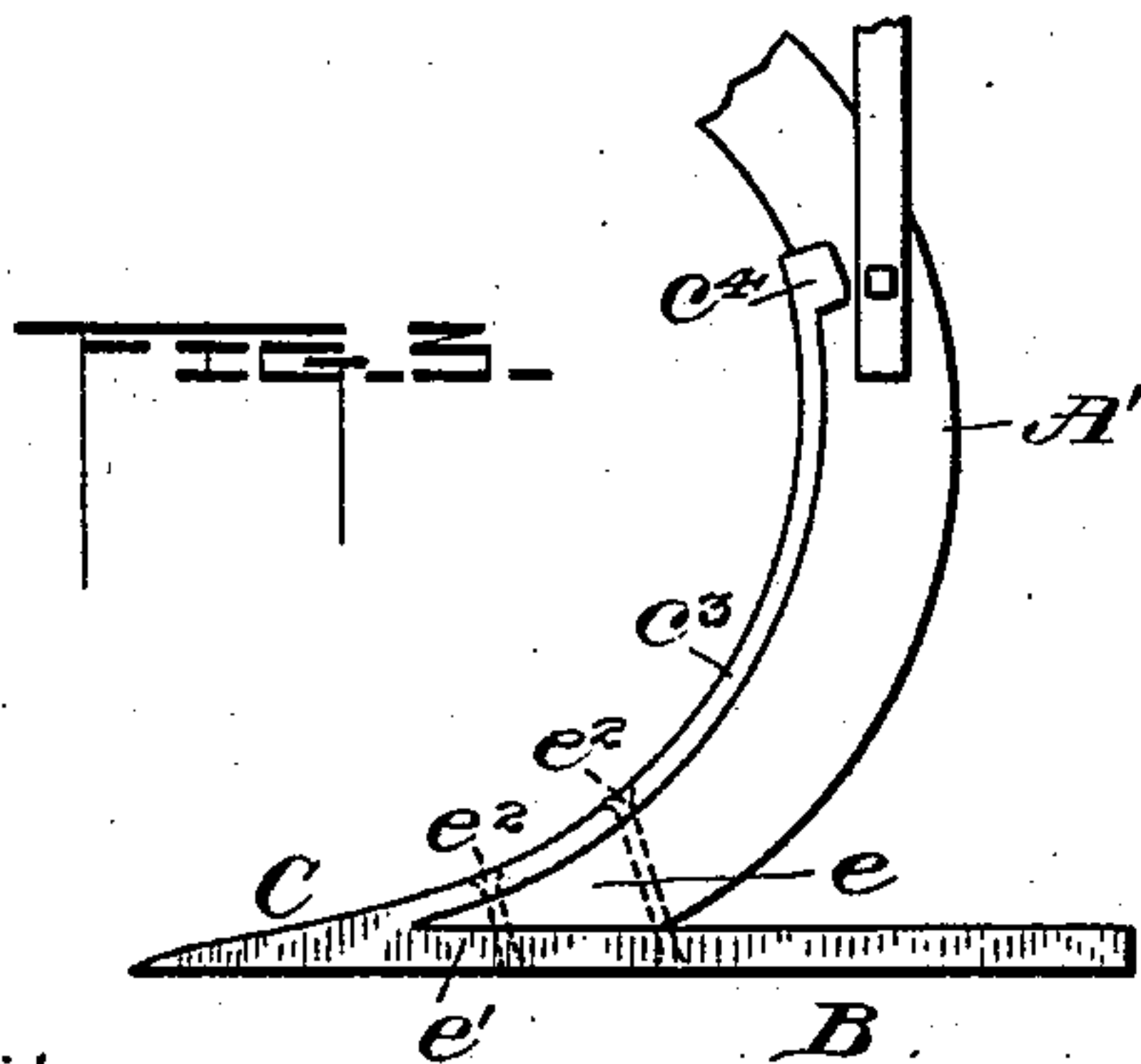
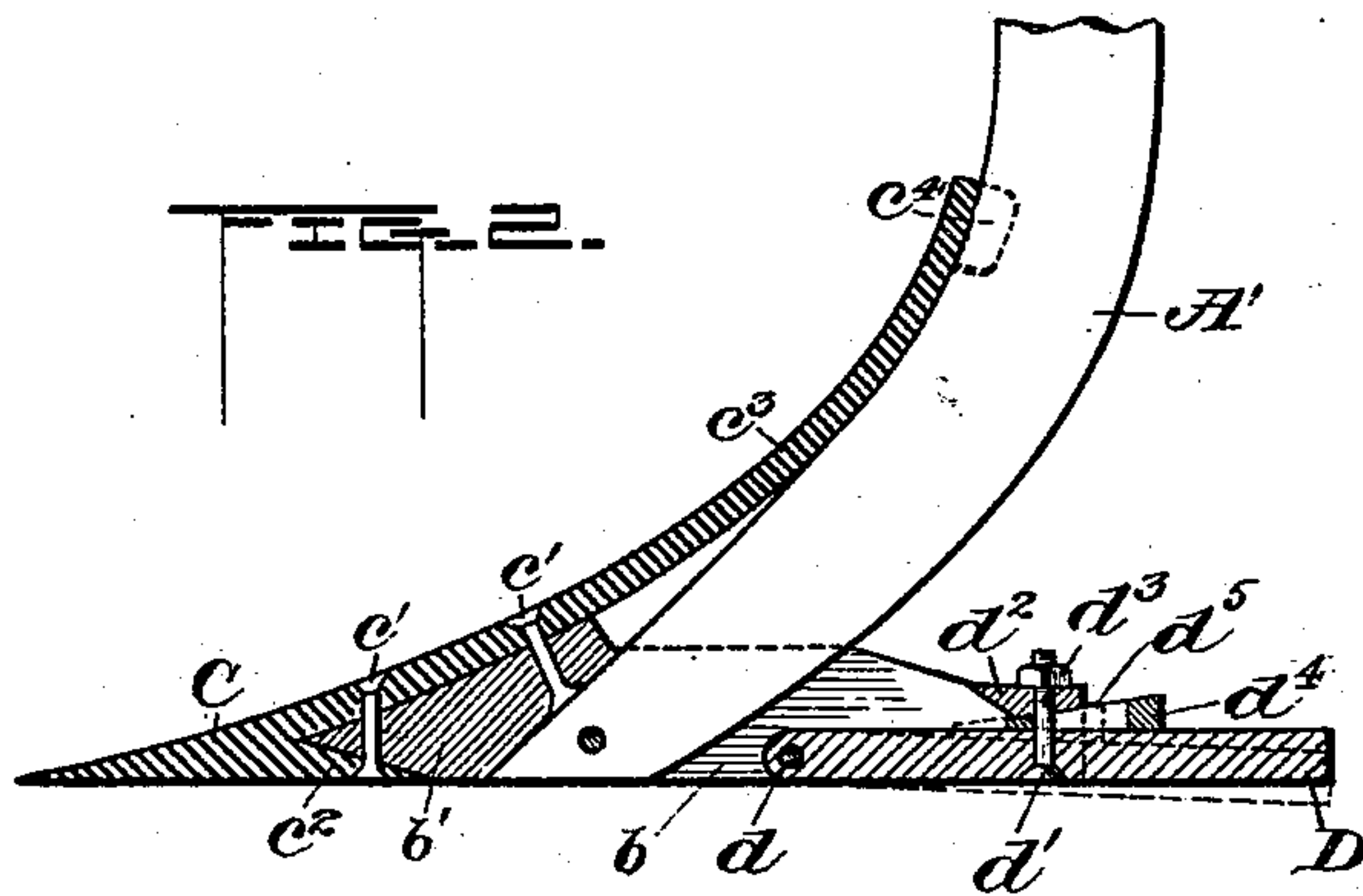
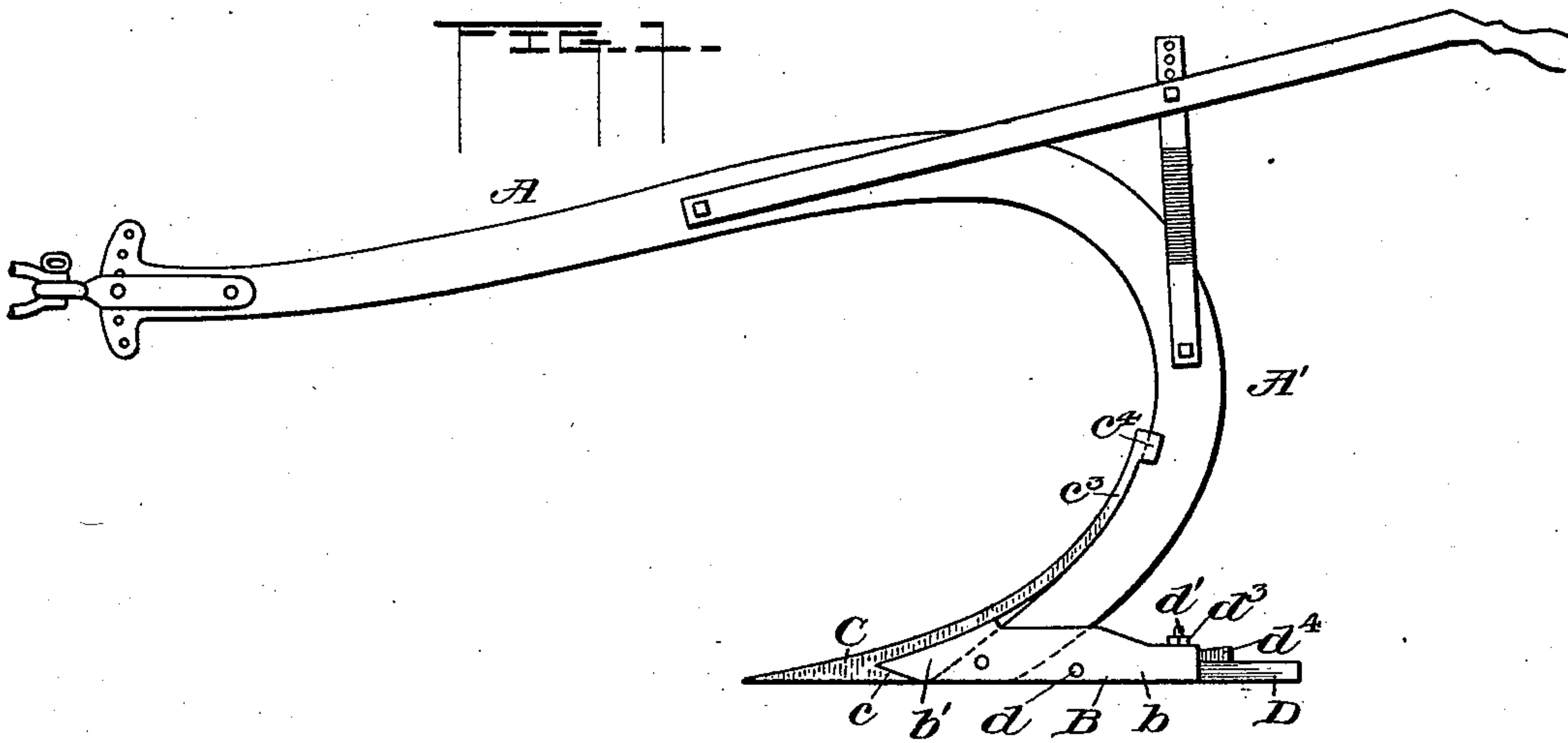


(No Model.)

S. D. POOLE.
PLOW.

No. 547,500.

Patented Oct. 8, 1895.



Witnesses
Charles E. Riordon
William B. Lovell.

Inventor
Staley D. Poole
by Butterworth & Dowell
his Attorneys

UNITED STATES PATENT OFFICE.

STALEY D. POOLE, OF MOLINE, ILLINOIS, ASSIGNOR TO THE DEERE & COMPANY, OF SAME PLACE.

PLOW.

SPECIFICATION forming part of Letters Patent No. 547,500, dated October 8, 1895.

Application filed May 20, 1895. Serial No. 549,906. (No model.)

To all whom it may concern:

Be it known that I, STALEY D. POOLE, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to plows, but more particularly to subsoil-plows.

The primary object of the invention is to provide simple and efficient means for adjusting the point of the plow to various degrees, whereby the said point may be made to engage the soil at the desired angle, so as to cause the same to be positively and properly held to its work, according to the nature of the soil to be plowed.

Further objects are to provide a point having an upwardly-extending portion adapted to engage the sides of the beam or standard to take up a portion of the lateral strain and to strengthen the several parts of the plow and to provide a subsoil-plow which will combine lightness with durability and which will be effective in use.

The invention will first be hereinafter more particularly described with reference to the accompanying drawings, forming a part of this specification, and then pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a side elevation of a preferred form of plow. Fig. 2 is a vertical section on a somewhat larger scale than Fig. 1, illustrating the manner of adjusting the point by means of the pivoted heel-piece, the lower portion only of the beam being shown. Fig. 3 is a modified form; and Fig. 4 is another modified form, illustrating a different means for adjusting the point.

The beam A may be of any suitable construction and of any preferred form, and may be bent downwardly to form a standard A', or the said standard may be secured to a wooden or other beam instead of being a continuation thereof, if preferred. To the lower portion of the standard A' is secured a shoe B, which is provided with side flanges b, form-

ing a socket in which the end of the standard is secured by bolts or otherwise. This shoe is preferably of malleable iron and may be provided with a wedge-shaped forward portion b', fitting into a similarly-formed socket c in the point C of the plow, the said shoe being secured to the point by the bolts c' c', one of which preferably passes through the flange c² of the point which forms the lower surface of the socket c. The point C is preferably made of steel and may be provided with an upward and rearwardly-extending and preferably integral portion c³, provided at or near its upper end with inwardly-extending flanges c⁴, which embrace the opposite sides of the standard, enabling the point to withstand any side pressure as well as to strengthen the several parts of the plow, though other means than the flanges may be employed for this purpose if found desirable.

The shoe B is preferably provided with an adjustable heel-piece D, which is pivoted at d between the flanges b b of said shoe. This heel-piece is provided with a bolt d' or other threaded projection, which has its end passed through an aperture in the bridge-piece d² of the shoe, on the outer end of which bolt is a nut d³, by which said heel-piece may be raised or permitted to lower with d as a pivot. Between the heel-piece and the lower surface of the bridge-piece (which lower surface is preferably slightly tapering) is arranged a wedge-piece d⁴, provided with a slot d⁵, through which the body of the bolt is passed, the said wedge-piece serving to retain the heel-piece in an adjusted position by forming a washer of varying diameter adapted to be clamped in different positions between said heel-piece and the bridge-piece d².

The manner of using the plow and of adjusting the point to different degrees will be understood from the foregoing description, in connection with the accompanying drawings. It will be seen that by unscrewing the nut d³ and forcing the wedge-piece d⁴ inward the outer end of the heel-piece D will be forced downward, in which position the said heel-piece may be secured. The heel-piece in this position will throw or adjust the point downward, causing the same to enter the soil to a greater degree, thereby holding the point posi-

tively to its work. The adjustability of said heel-piece, however, also serves to compensate for the wear of the parts.

In Fig. 3 the point and shoe are integral, the standard A' in this case being provided with a wedge-shaped lower end e , fitting into a socket e' , formed between the inner surface of the point C and the upper surface of the shoe. The point is provided with the upward and rearwardly extending portion c^3 , as in Fig. 2, and is secured to the standard by the bolts e^2 e^2 .

Instead of adjusting the point by means of the heel-piece D, I may form the point and shoe integrally and provide the latter with a socket f , in which the lower end of the standard A' is pivoted, as shown in dotted lines in Fig. 4. Extending upward from the rear portion of the shoe is a bolt g , which may have its lower end pivoted to the shoe and its upper end threaded and passed through an aperture or slot in a projection g' , which is secured to or formed integrally with the standard A'. This bolt is preferably provided with nuts g^2 g^2 , arranged on opposite sides of the projection, by which the bolt may be readily and securely locked in any desired position and the point C raised or lowered by simply adjusting said bolt.

It is of course to be understood that I do not confine myself to the exact construction disclosed, as this may be varied in some instances without departing from the character of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a subsoil plow, the combination with a standard, of a point having an upward and rearwardly extending portion formed integrally therewith and provided at its upper end with flanges directly embracing the sides of said standard, and a shoe extending rearwardly from said point, substantially as described.

2. In a subsoil plow, the combination with a standard, of a point having an upward and rearwardly extending portion formed integrally therewith and having its upper end directly embracing the sides of said standard, a

shoe extending rearwardly from said point, together with means for lowering or raising the point, substantially as described.

3. In a subsoil plow, the combination, with a standard, of a point provided with a wedge-shaped socket, a shoe provided with a wedge-shaped end rigidly secured in said socket, a heel-piece pivoted to the shoe, and means for raising and lowering said heel-piece so as to adjust the point either upward or downward, substantially as described.

4. In a subsoil plow, the combination, with a standard, of a point, a shoe provided with side flanges forming a socket in which the end of the standard may be secured, a heel-piece pivoted between the flanges forming the socket, a bridge-piece arranged at the rear of the shoe, a bolt extending from the heel-piece and passing through said bridge-piece, together with a wedge-piece arranged between the lower surface of the bridge-piece and said heel-piece by which said heel-piece may be rigidly secured in different positions to adjust the position of the point, substantially as described.

5. In a subsoil plow, the combination, with a standard, of a point provided with an upward and rearwardly-extending portion having its upper end embracing the sides of the standard, a rearwardly-extending shoe provided with a wedge-shaped forward end rigidly secured in a wedge-shaped socket formed in said point, a heel-piece pivoted to said shoe in a socket formed by side flanges between which the standard is secured, a bridge-piece arranged at the rear of the shoe, a bolt passing through the heel-piece and said bridge-piece, together with a wedge-piece arranged between the lower surface of the bridge-piece and said heel-piece, by which said heel-piece may be rigidly secured in different positions to adjust the positions of the point, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

STALEY D. POOLE.

Witnesses:

HERBERT G. COPP,
FRED H. COOPER.