D. DAHLSTROM.

DITCHING PLOW.

APPLICATION FILED FEB. 17, 1909.

956,299.

Patented Apr. 26, 1910.

2 SHEETS—SHEET 1.

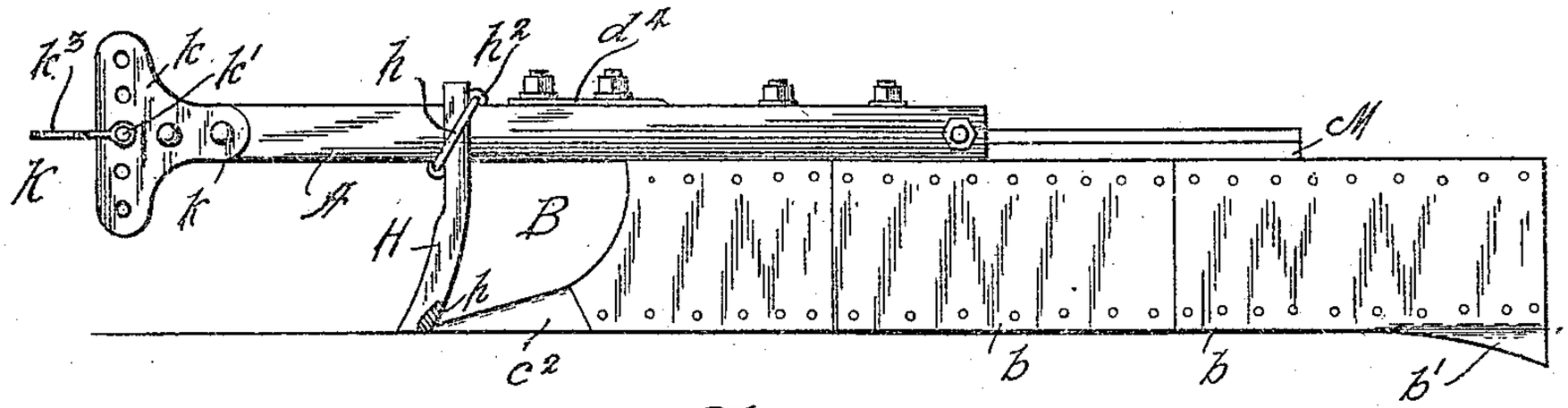

Fig. 1.

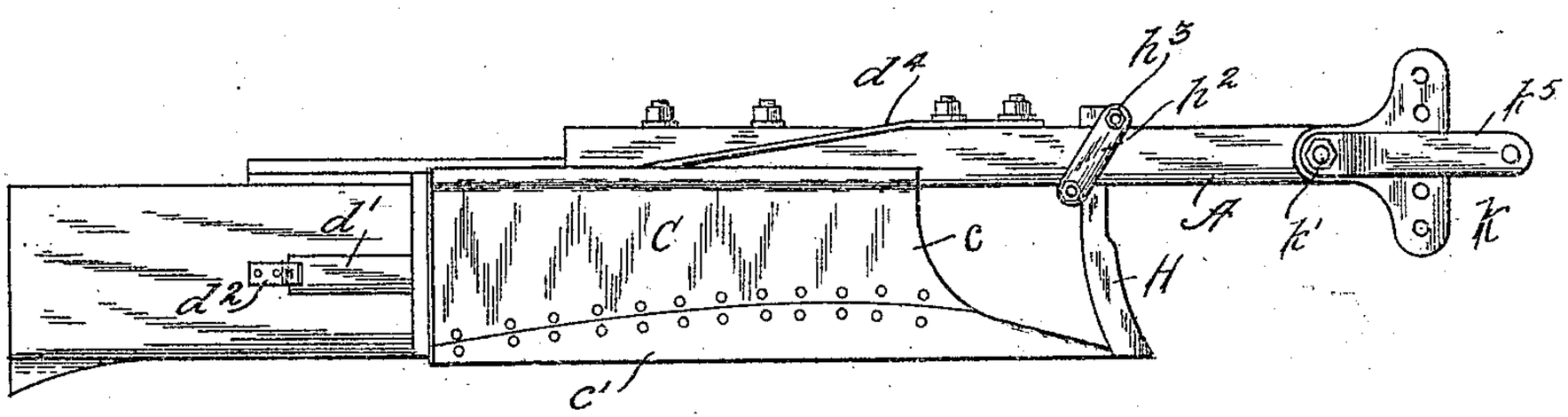

Fig. 2.

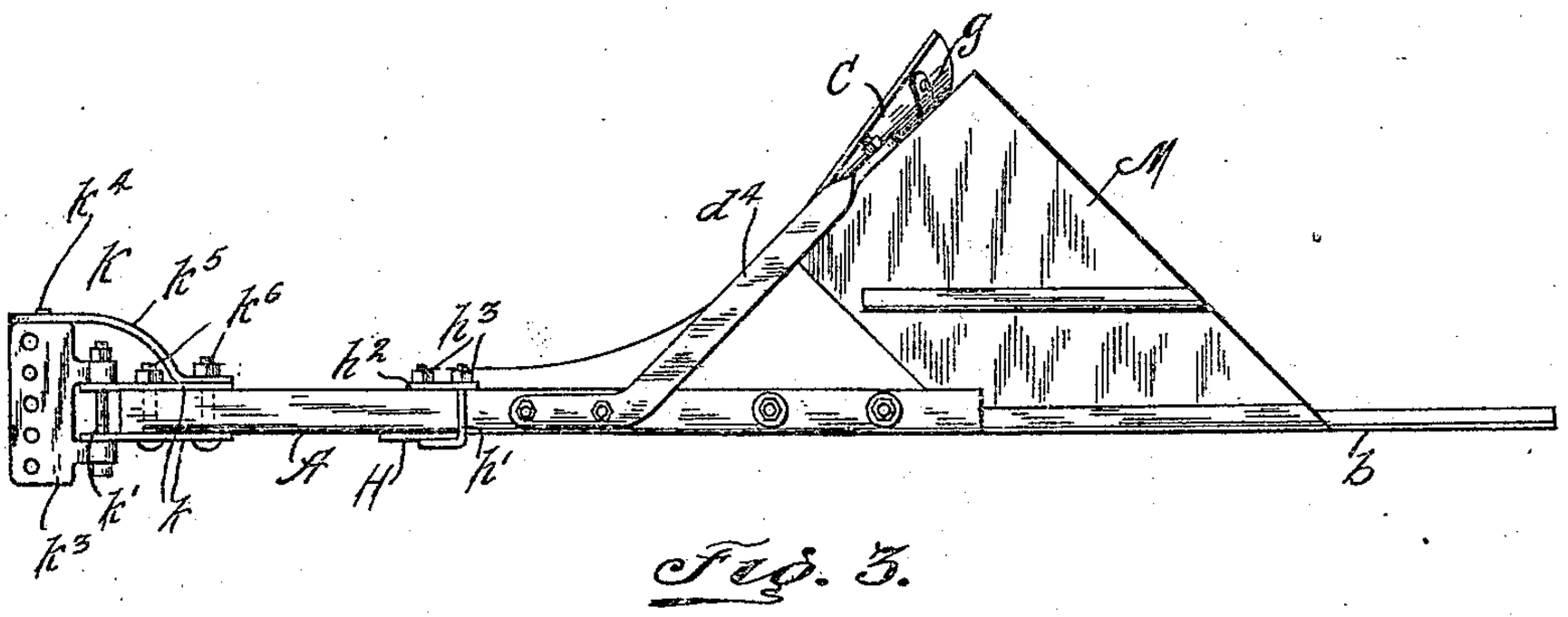

Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

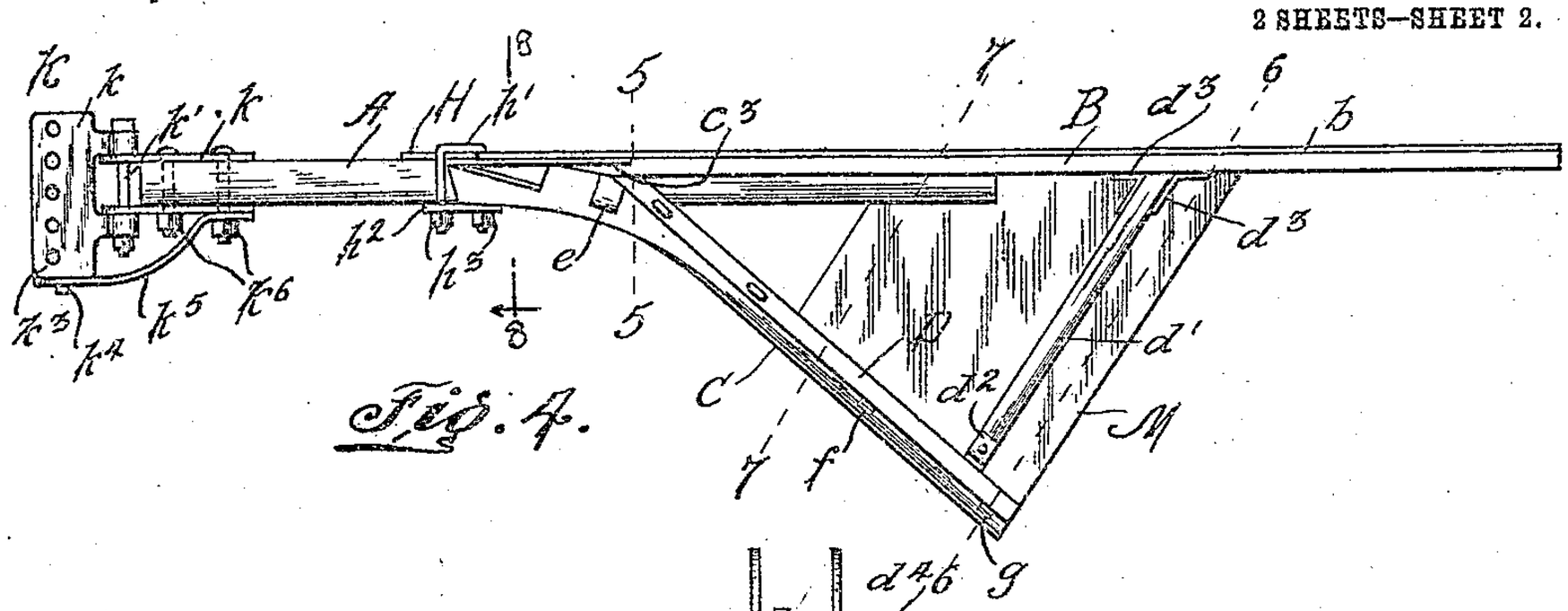

Fig. 4.

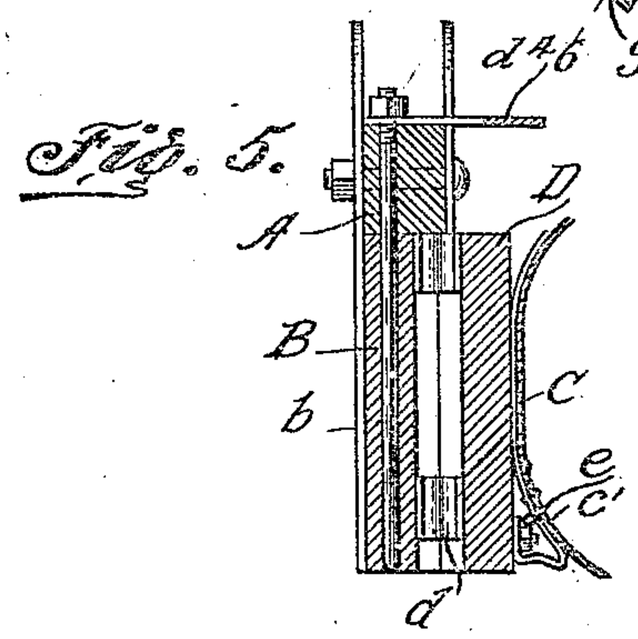

Fig. 5.

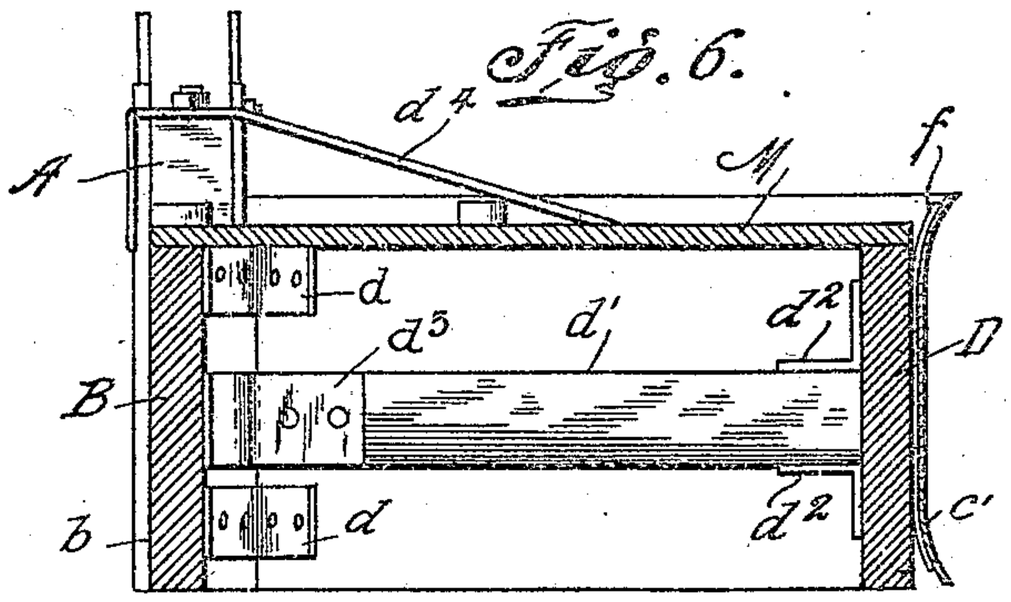

Fig. 6.

Fig. 7.

Fig. 8.

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UNITED STATES PATENT OFFICE.

DANIEL DAHLSTROM, OF ALVARADO, MINNESOTA.

DITCHING-PLOW.

956,299. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed February 17, 1909. Serial No. 478,362.

To all whom it may concern:

Be it known that I, DANIEL DAHLSTROM, a citizen of the United States, residing at Alvarado, in the county of Marshall, State of Minnesota, have invented certain new and useful Improvements in Ditching-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.

The present invention relates to improvements in ditching plows, and it has for its chief object the production of an extremely simple, effective and durable plow of the type specified, the invention residing especially in the specific form of mold board employed and the particular manner in which the same is braced and connected with the land-side.

Briefly described, the invention comprises a main or draft beam, to which the land-side is connected, an adjustable colter secured to the beam in advance of the land side, and a mold board secured to a rearwardly extending wing fastened to the landside and set at an angle thereto. This wing forms a brace for the mold-board and thus enables the same to be constructed of lighter metal than has heretofore been possible, the share member of the mold-board being secured to the body portion thereof by a series of bowed metal straps, one of the straps having its lower end fastened to the landside, which latter is provided with a metal facing having connected thereto a rearwardly extending flange formed upon the nose of the mold-board.

The preferred embodiment of the invention is illustrated in the accompanying drawings in which corresponding parts are designated by the same reference characters throughout the several views.

Of the said drawings, Figures 1 and 2 are elevations of the improved plow taken from opposite sides thereof. Fig. 3 is a top plan view. Fig. 4 is a bottom plan view. Figs. 5, 6 and 7 are transverse sections taken on the lines 5—5, 6—6 and 7—7 of Fig. 4. Fig. 8, a section on the line 8—8 of Fig. 4.

Referring more particularly to the drawings, A designates the beam, B the landside, and C the mold-board. The mold-board which is bolted directly to the under face of the beam and projects beyond the rear end thereof, has its outer side face provided with a facing *b* of metal plates riveted thereto and to each other, the edges of the facing coinciding with those of the land side excepting at the rear end of the latter where the facing is widened and bent outwardly, as indicated by the reference letter *b'*, to form a tail-piece or rudder.

To the landside is secured at an acute angle, a rearwardly-extending wing D, the attachment of the latter to the landside being effected by a pair of V-shaped metal straps *d* located at the front end of the wing, and by a cross-piece *d'* located adjacent to the rear end thereof, the ends of the cross-piece being fastened to pairs of bent straps d^2 and d^3. The wing is also connected to the beam A by means of a strap d^4, whose ends are fastened to the upper edges of the wing and beam, said strap being set at an angle to the latter, as shown. This wing serves as a brace for the mold-board C, which latter comprises a body portion *c*, and a share *c'*, the first mentioned portion being bolted to the wing adjacent its upper longitudinal edge, while its lower edge is bent or curved slightly outward throughout its entire length, the degree of curvature increasing gradually from its rear to its front end. The share portion *c'* of the mold-board is constructed separately from the body portion *c*, and is likewise curved outwardly on a gradually increasing scale, the curvature being greatest at the front end or nose of the share at which point the share is bent to form a rearwardly extending flange or lip c^2 arranged for attachment to the outer side face of the landside, so as to act as a continuation of the facing *b*, (see Fig. 1). At the point where this flange is formed, the share is strengthened by a bent metal strap c^3 which is V-shaped in cross-section and has its wings secured to the inner faces of said lip and share. (See Fig. 4.)

The two members of the mold-board are fastened together by means of a series of three transversely-arranged straps *e*, *f* and *g*, which straps are riveted to the inner faces of said portions and are thus disposed between the mold-board and the wing D. The lower portions of the straps are bent so as to conform to the cross-sectional curvature of the mold-board. The length of the foremost strap *e* is sufficiently great to permit the extreme lower portion thereof to be bent backward against the inner face of the wing, and the terminal of such portion secured

thereto, as shown in Fig. 5. This bent portion manifestly tends to brace the share at the point of its attachment thereto.

The pointed extremity of the nose portion of the share is arranged to fit in a notch h formed in the back or rear edge of an adjustable knife colter H whose shank extends across the beam A and is fastened thereto by means of a clip h' which straddles the beam, the free ends of the legs of the clip extending through perforations formed in a strap h^2 against which latter a pair of nuts h^3 threaded on the clip legs are arranged to be tightened, thus retaining the colter in place.

At its forward end, the beam is provided with a clevis K comprising a pair of side plates k, whose front portions are enlarged and formed with series of alining perforations in which the ends of a bolt k' are arranged for interchangeable engagement. This bolt carries a perforated horizontal plate k^3 arranged at right angles to the plates k and formed with rearwardly extending lateral arms provided with openings through which the ends of the bolt loosely pass. One end of the plate is provided with a finger k^4 which fits loosely in an opening formed in the front end of a strap k^5 whose rear end is connected to one of the bolts k^6 by means of which said plates k are fastened to the beam.

The top edges of the wing and landside are connected by a platform M which rests thereupon and is bolted or otherwise attached thereto.

Owing to the provision of the wing and the three brace straps, it will be apparent that the two members of the mold-board can be constructed of lighter metal than has heretofore been possible, since the mold-board is braced at all points and thus strengthened. The nose portion of the share member of the mold-board is also braced by means of the bent strap c^3.

Further description of the invention is considered unnecessary in view of the foregoing.

What is claimed is:—

The combination in a plow, of a beam; a landside fastened thereto; a facing secured to the outer side face of the landside; a rearwardly-extending wing secured to the landside and set at an angle thereto; a mold-board carried by the wing and comprising a body portion and an outwardly curved share, said share having its nose projecting beyond the wing and formed with a rearwardly-extending flange secured to the landside and forming a continuation of said facing; a series of straps connecting said body portion and share together and arranged against the inner faces thereof, said straps having their lower portions curved, to conform to the curvature of the share, the curved portion of one strap being bent backwardly and secured to said wing, and a strap disposed against the nose of the share and the flange, and having its ends secured thereto for bracing the same.

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

DANIEL DAHLSTROM.

Witnesses:
EMIL DAHLSTROM,
HENRY SANDS.