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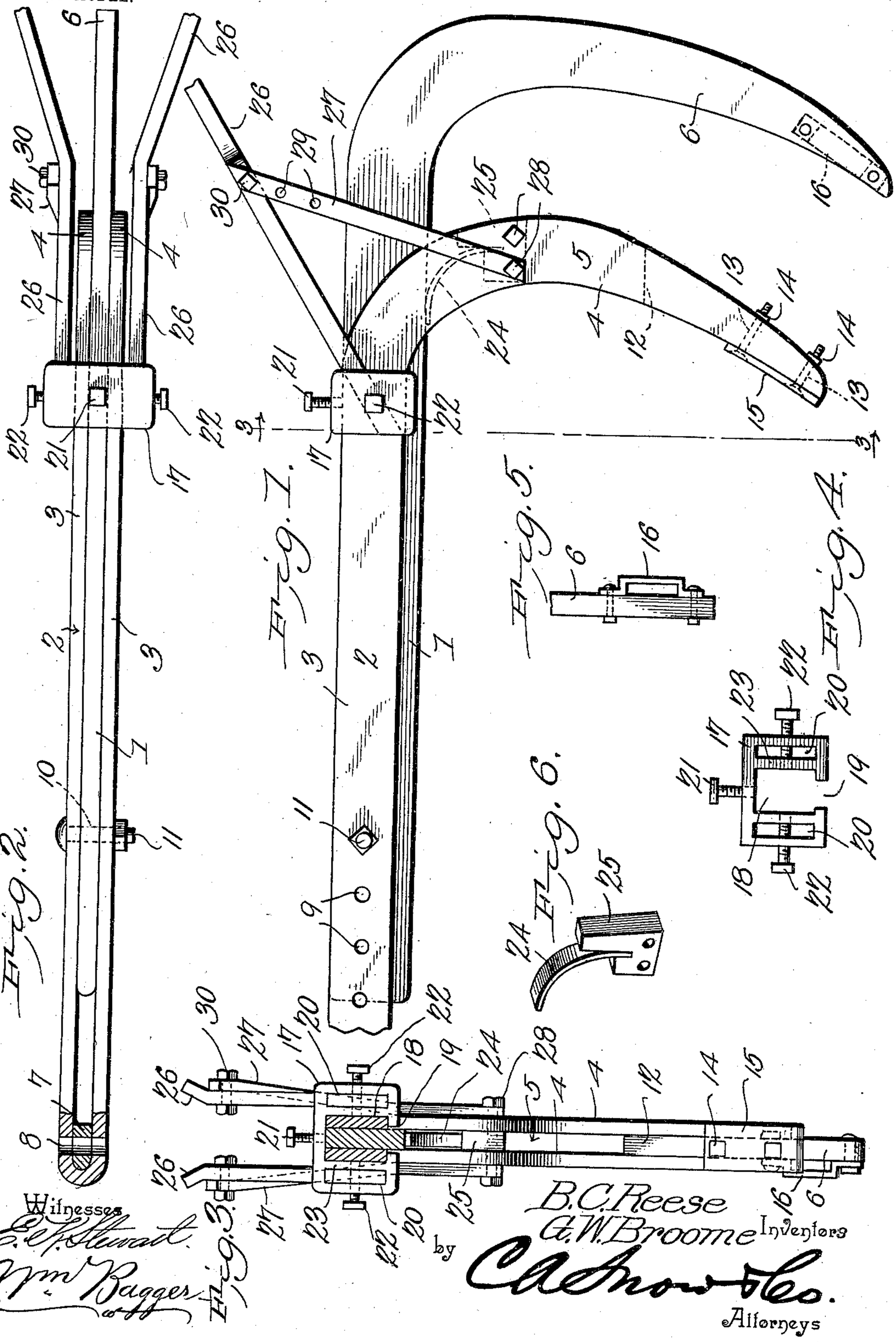
B. C. REESE & G. W. BROOME.

PLOW.

APPLICATION FILED JULY 24, 1903.

NO MODEL.



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UNITED STATES PATENT OFFICE.

BENJAMIN C. REESE AND GEORGE W. BROOME, OF PAVO, GEORGIA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 755,548, dated March 22, 1904.

Application filed July 24, 1903. Serial No. 166,886. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN C. REESE and GEORGE W. BROOME, citizens of the United States, residing at Pavo, in the county of Thomas and State of Georgia, have invented a new and useful Plow, of which the following is a specification.

This invention relates to plows; and it has special reference to the plow-carrying stocks or frames of that class which are constructed of strap-iron of suitable dimensions and in which the beams are curved in a downward direction to form standards forming feet upon which the plows are mounted for operation.

Our present invention has particular reference to plows of this class which are provided with a subsoiling attachment; and the invention has for its object to simplify the construction, to provide a device which shall be durable, inexpensive, and easily operated, to provide for the adjustment of depth of the subsoiling attachment, and to provide a supporting-spring for the pivoted center beam carrying such subsoiling attachment.

With these and other ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a plow-frame constructed in accordance with our invention. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view taken on the line 3 3 in Fig. 1. Fig. 4 is a detail view of the spring-carrying casting which supports the adjustable center beam. Fig. 5 is a detail rear view of the lower end of the center beam. Fig. 6 is a perspective detail view of the block carrying the spring for supporting the center beam.

Corresponding parts in the several figures are indicated by similar numerals of reference.

Our improved plow-frame comprises in its construction a single center beam 1 and a duplex beam 2, the latter being constructed from a single strap of iron, which is bent at its front end, so as to form the side beams 3 3, the rear ends of which are curved downwardly and form standards, which have been separately indicated by numerals 4 4, but which in reality combine to form a single standard, (designated 5,) the said side members 4 4, as well as the side members 3 3 of the duplex beam 2, being spaced apart only by the width of the center beam 1, the actual width of which is only about three-quarters of an inch. The rear end of said center beam is bent or curved downwardly to form a standard 6.

The side members 3 of the duplex beam 2 are spaced at their front ends by an interposed block or washer 7, which is of a width about equal to the width of the center beam and which is permanently secured in place by bolting, welding, or in any other convenient manner, a transverse perforation 8 being provided for the attachment of the draft. The members 3 of said duplex beam 2 are also provided with transverse perforations 9, adapted to aline with similar perforations 10 in the center beam, which latter may thus be connected with the side members 3 by a bolt 11, which obviously admits of the relative longitudinal adjustment of the parts.

The points of the side members 4 of the standard 5 are spaced and connected by means of an interposed block or washer 12, through which extends perforations 13 for the accommodation of bolts 14, by means of which a base-plate 15 may be seated upon said block. This base-plate is adapted for the support of wings or turning plows when such are to be used. If a straight or bull-tongue plow is to be used, it may be mounted upon the point of the duplex standard without the interposition of the plate 15.

To one side of the standard 6 of the center beam, at the point thereof, is secured a laterally-extending slotted plate or member 16, the slot of which is approximately three-quarters of an inch wide and four inches in length and which serves for the attachment, by means of an ordinary heel-bolt, of the subsoiler. This, which may be of any suitable well-known construction, has not been shown in the drawings, for the reason that any well-known variety of such subsoiling attachment may be used in connection with our invention, and we lay no claim to the particular construction of the same.

17 designates a block or casting which is provided with a centrally-disposed opening 18,

having an inlet-slot 19 in the bottom thereof. Adjacent to said central opening the casting 17 is provided with slots 20. Extending through the upper wall of the casting and communicating with the opening 18 is a set-screw 21. Additional set-screws 22 extend through the side walls of the slots 20 and communicate at their inner ends with the opening 18.

In practice the block or casting 17 is mounted upon the side members 3 of the duplex beam 2, which latter—that is to say, the side members—are supported in the opening 18 against the opposite side walls of said opening, while the brackets 23, which are separated by the slot 19, serve to support the under edges of said members 3. The center beam 1 is placed in the opening 18 between the side members 3 of the duplex beam and is free to move vertically between said side members. Said center beam is normally supported in a raised position and in engagement with the set-screw 21 by means of a spring 24, mounted in a casting 25, which is bolted or otherwise suitably secured between the side members 4 of the standard of the duplex beam, said block or casting 25 being secured a suitable distance above the block or casting 12. The spring 24, which is forwardly curved, as shown, abuts against the under side of the center beam and should be of sufficient strength to support the weight of the latter.

The slots 20 in the casting 17 are for the reception of the lower ends of the handles 26, which are extended into said slots and which are penetrated by the set-screws 22, which latter thus perform the double function of securing the handles and of pressing against the outer sides of the side members 3 of the duplex beam, thus causing the said side members to bear with any desired degree of pressure against the sides of the center beam, thereby creating a frictional resistance which makes it unnecessary to depend wholly upon the spring 24 for the purpose of supporting the weight of the center beam.

The handles 26 are connected, by means of braces 27, with the side members 4, said braces being preferably mounted upon one of the bolts 28, which serve to secure in position the spring-carrying casting 25. The braces 27 are provided each with a plurality of perforations 29 for the reception of the upper connecting-bolt 30, thereby permitting the plow-handles to be raised or lowered to any desired position.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of our invention will be readily understood. The center beam being pivotally connected with the duplex beam by means of a single bolt permits the stock or standard of said center beam, which carries the subsoiling attachment, to be raised or lowered within reasonable limits, the lowering being effected by means of the set-screw 21, the set-screws 22 having previously been loosened, so as to permit the center beam to slide freely between the side members of the duplex beam. When the desired adjustment against the tension of the spring 24 has been effected, the screws 22 are retightened, and the device is then ready for operation. Plow-blades of any desired construction may be mounted upon the stock or standard of the duplex beam. When heavy plows are used or when for any reason it is not desired to use the subsoiling attachment, the center beam may be raised to its limit, and said limit may be considerably increased by moving the clamping member 17 forwardly upon the beam, or it may be temporarily detached, if desired. The relative distance between the standards of the duplex beam and the center beam may be regulated by properly adjusting the bolt 11. The device is extremely simple in construction and may be produced and placed on the market at a moderate expense. At the same time it will be found to have a range of adjustment and to afford a degree of convenience which is rarely attained by devices of this class as ordinarily constructed.

Having thus described our invention, we claim—

1. A duplex beam having downturned rear ends coöperating to form a standard, in combination with a center beam interposed between and pivotally connected with the side members of the duplex beam and having a standard, and spring supporting means for the center beam interposed between the side members which coöperate to form the standard of the duplex beam.

2. A duplex beam a pivotally-mounted center beam interposed between and spacing the side members of said duplex beam, a connecting member having an opening for the passage of the side members of the duplex beam, said opening being provided with a bottom slot for the insertion between said side members of the center beam, and set-screws disposed to bear against the outer sides of the side members of the duplex beam to cause the latter to frictionally engage the sides of the center beam.

3. A plow-frame comprising side beams having downturned rear ends coöperating to form a standard, a center beam having a standard, a connecting device having an opening for the passage of said center beam and side beams, said opening having a slot in the bottom thereof forming brackets for the support of the side members and admitting of the vertical movement of the center beam, a set-screw bearing against the upper edge of the center beam, and set-screws bearing against the outer sides of the side beams.

4. A plow-frame comprising a center beam and a duplex beam having side members pivotally connected with and spaced by said center beam, the side members of the duplex

beam having downturned rear ends coöperating to form a standard, a connecting device having an opening for the accommodation of the center beam and the side members of the duplex beam, said opening having a slot in its lower side for the passage of the center beam, set-screws disposed to bear against the outer sides of the said members of the duplex beam, a set-screw bearing against the upper edge of the center beam, and spring supporting means for the latter.

5. A duplex frame having side members provided with downturned rear ends coöperating to form a standard, a center beam mounted pivotally between and spacing said side members, a connecting-clamp having an opening for the admission of said side members and center beam, said opening being slotted at its lower end for the passage of said center beam, a block mounted between the side members of the standard of the duplex beam, and a spring mounted in said block bearing against the under side of the center beam.

6. A duplex beam having side members provided with downturned rear ends coöperating to form a standard, a center beam mounted pivotally between the side members of the duplex beam, a connecting device having an opening for the passage of the side members of the duplex beam and adapted for the vertical adjustment between said side members of the center beam, slots in said connecting device adjacent to the outer sides of the side members of the duplex beam, and handles mounted in said slots.

7. A duplex beam having downturned rear ends coöperating to form a standard, a center beam mounted pivotally between said side members, a connecting device having a central opening for the accommodation of the side members of the duplex beam and for the disposition between said side members of the center beam, said connecting device being provided with slots adjacent to the said side members, set-screws extending through the side walls of said slots and bearing against the outer sides of the side members of the duplex beam, and plow-handles extending through said slots and provided with perforations engaged by the said set-screws.

8. A duplex beam having side members provided with downturned rear ends coöperating to form a standard, a center beam mounted pivotally between the side members of said duplex beam, a connecting device having an opening for the passage of the center beam and the side members of the duplex beam and means for the vertical adjustment of the center beam, slots in said connecting device adjacent to the outer sides of the side members of the duplex beam, a block secured between the side members of the standard of the duplex beam, a supporting-spring for the center beam mounted in said block, bolts for the securement of the latter, plow-handles mounted in the slots of the connecting device, set-screws extending through the side walls of said slots and through the plow-handles and bearing against the outer sides of the side members of the duplex beam, and handle-supporting braces connected with said handles and with one of the bolts securing in position the spring-carrying block between the side members and the standard of the duplex beam.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

BENJAMIN C. REESE.
GEORGE W. BROOME.

Witnesses:
W. A. RUSLIN,
T. N. REDDICK.