No. 622,719.

Patented Apr. 11, 1899.

W. A. SHACKELFORD.

COMBINATION PLOW.

(Application filed Nov. 18, 1898.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.

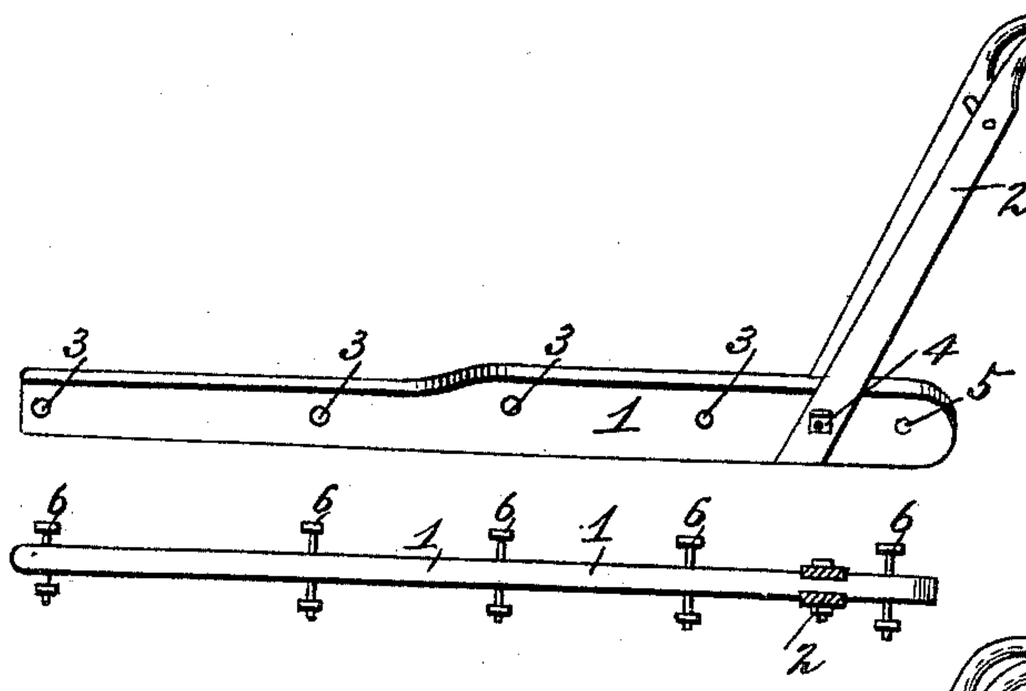

Fig. 2.

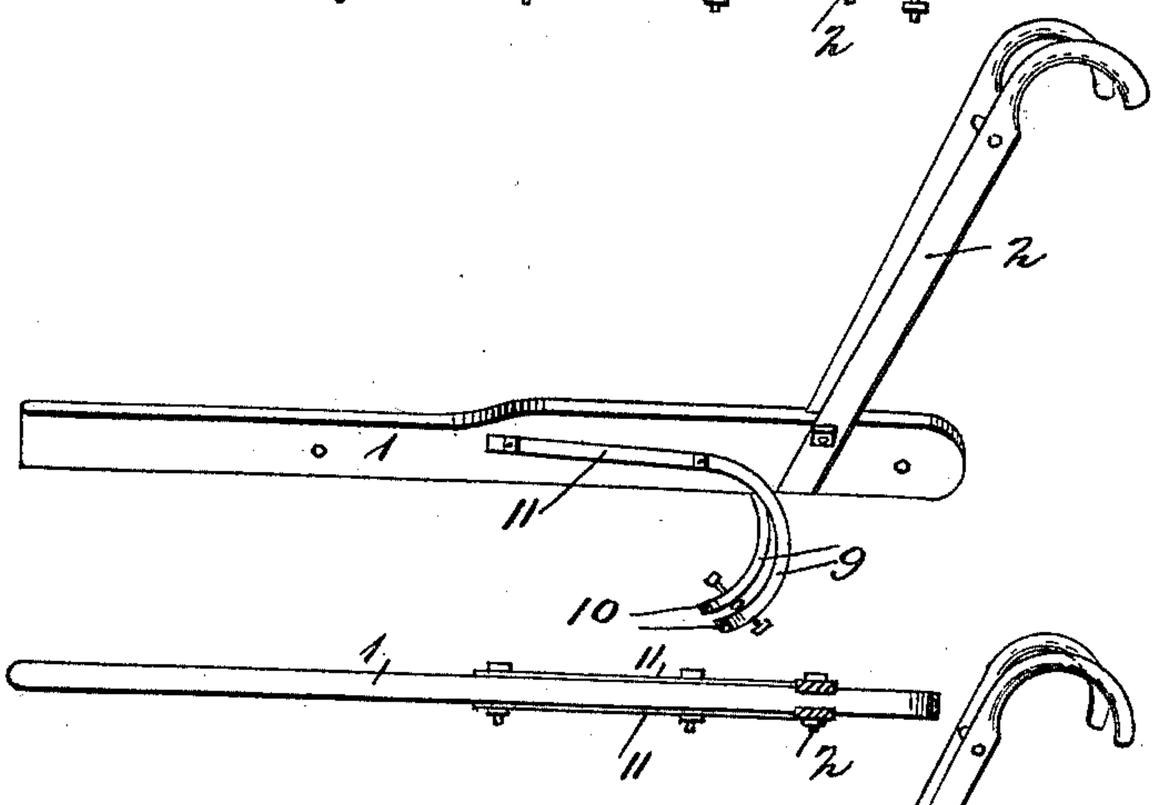

Fig. 3

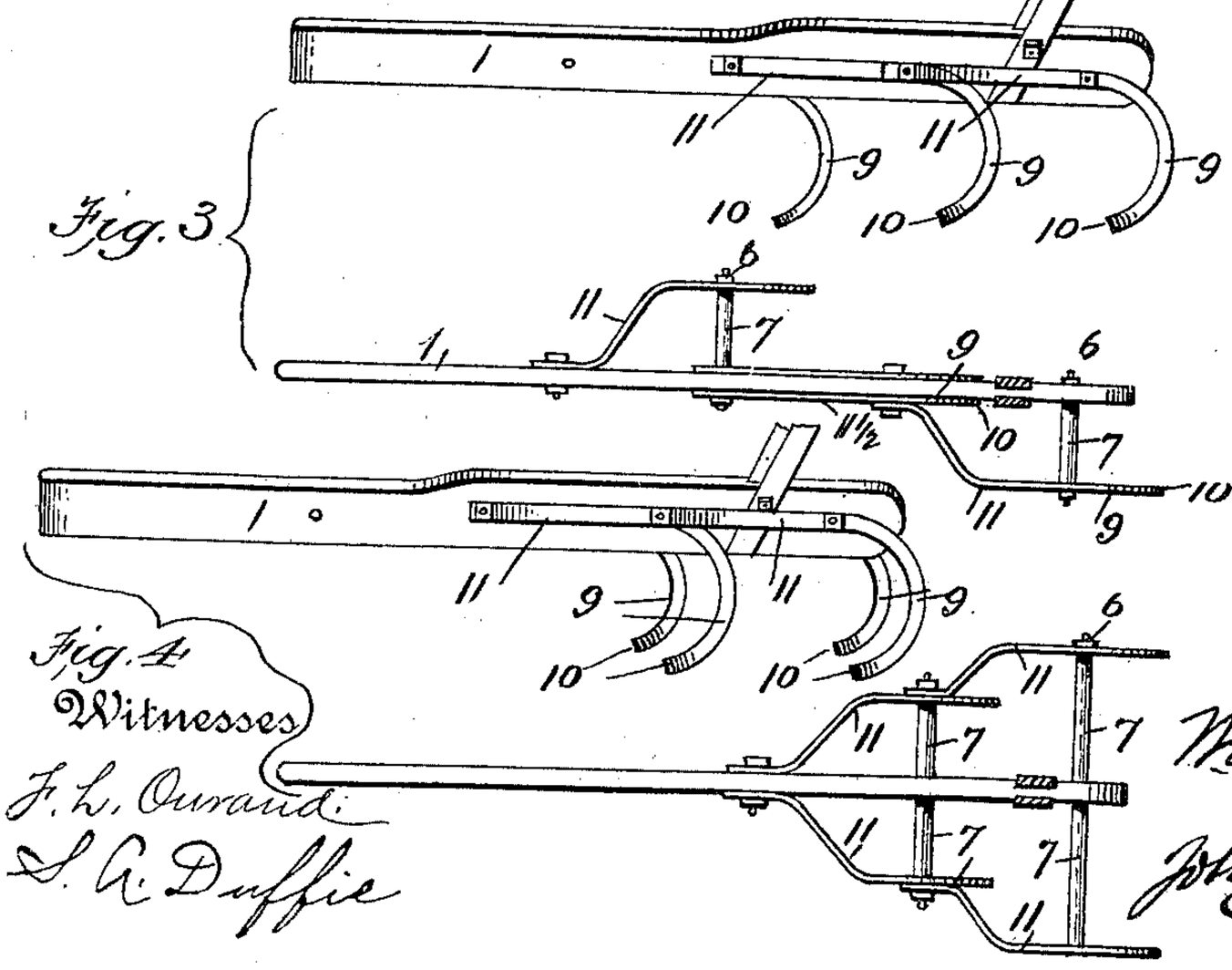

Fig. 4

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Fig. 5

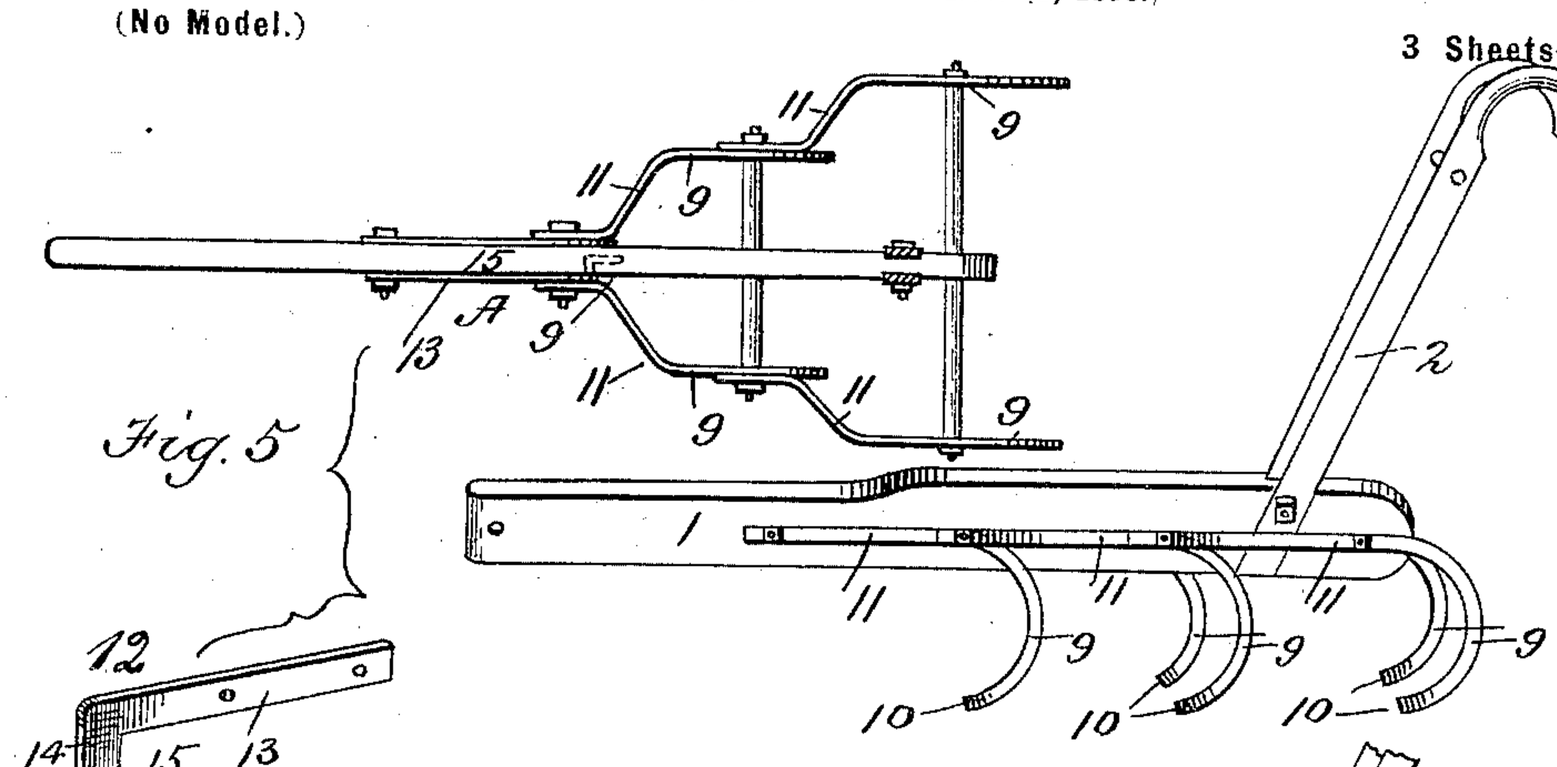

Fig. 6.

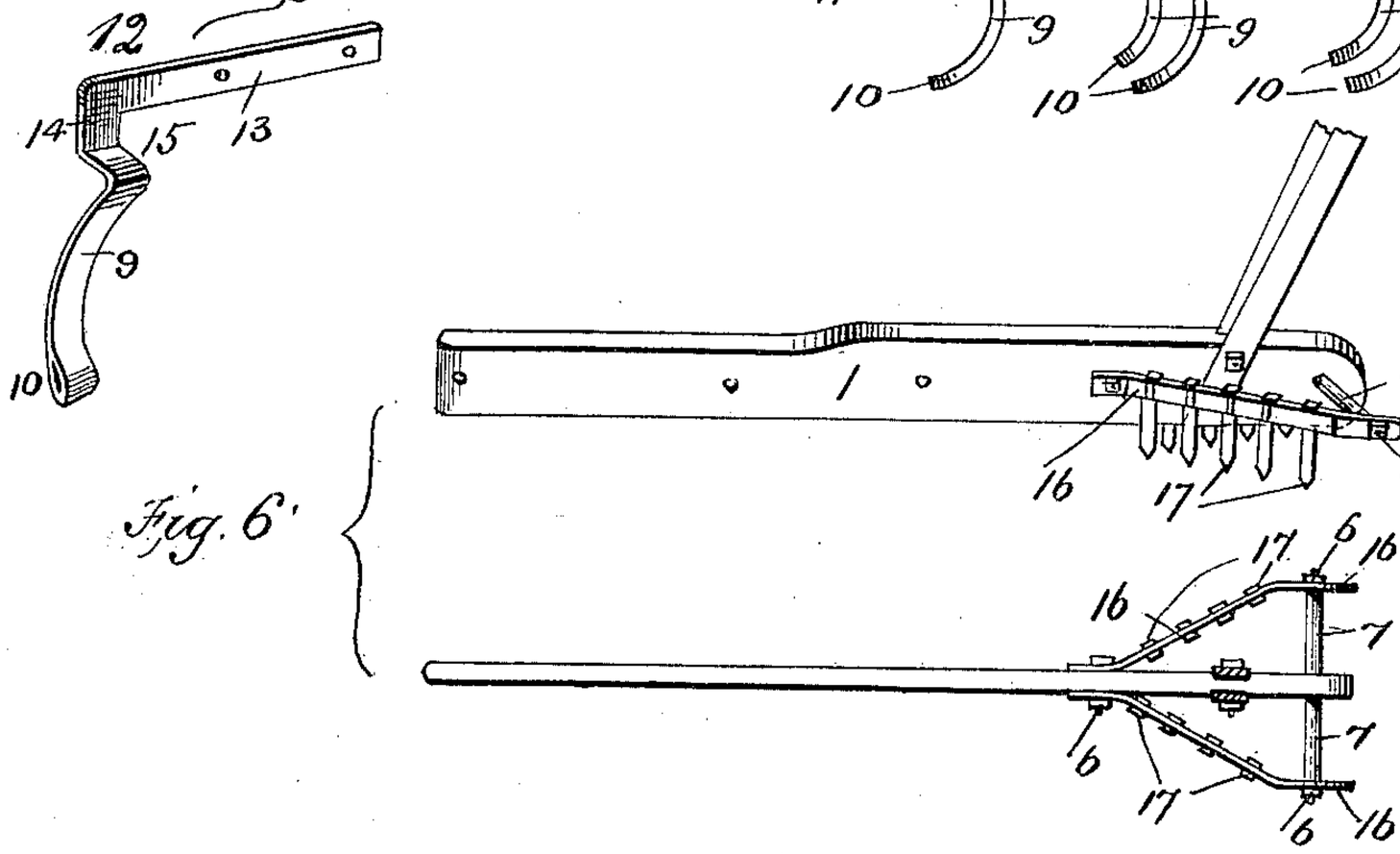

Fig. 7.

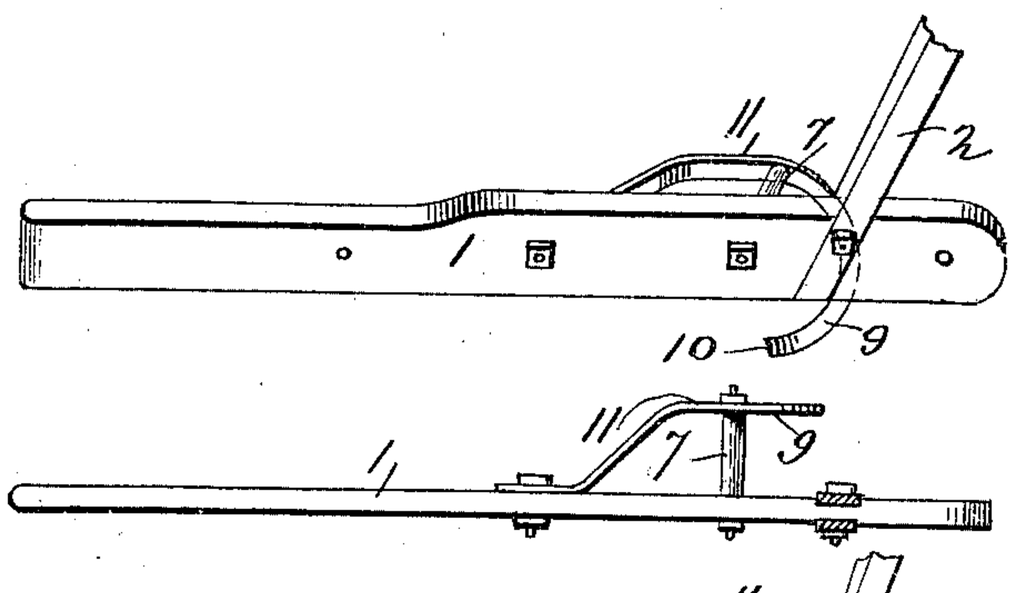

Fig. 8.

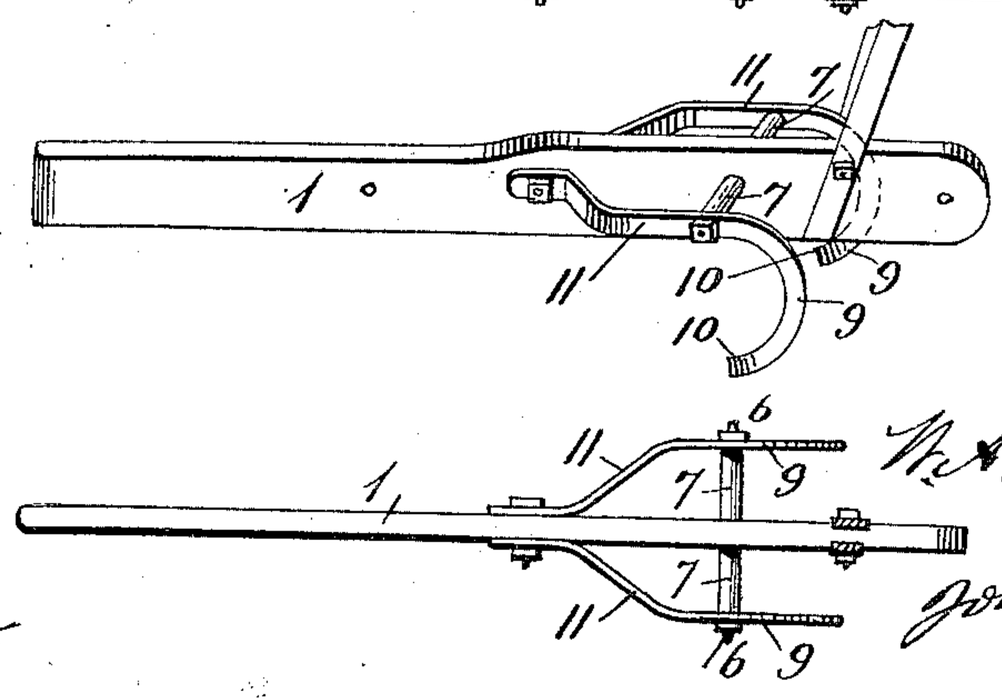

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Fig. 9.

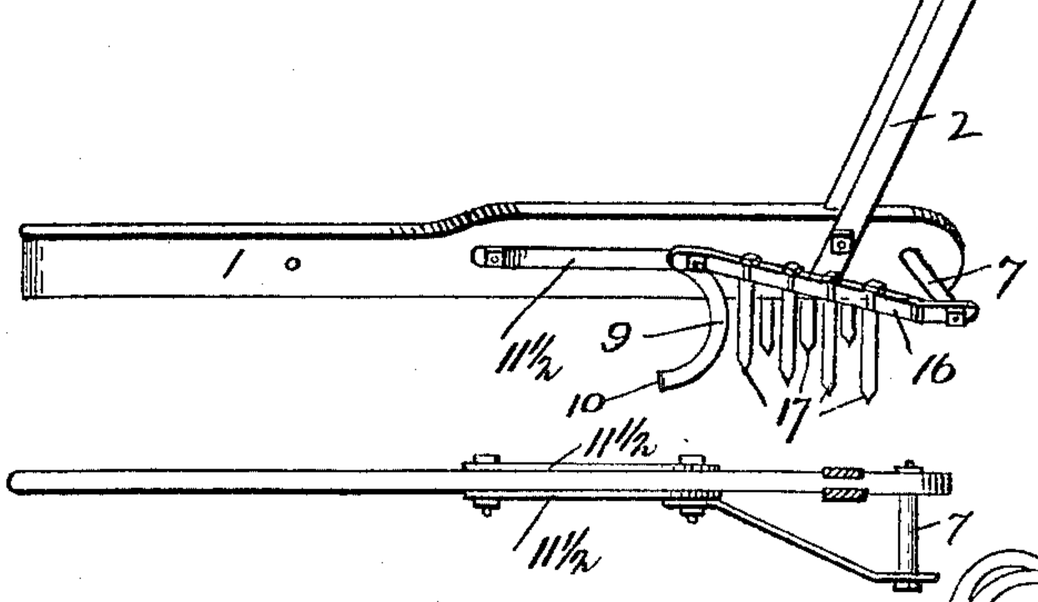


Fig. 10.

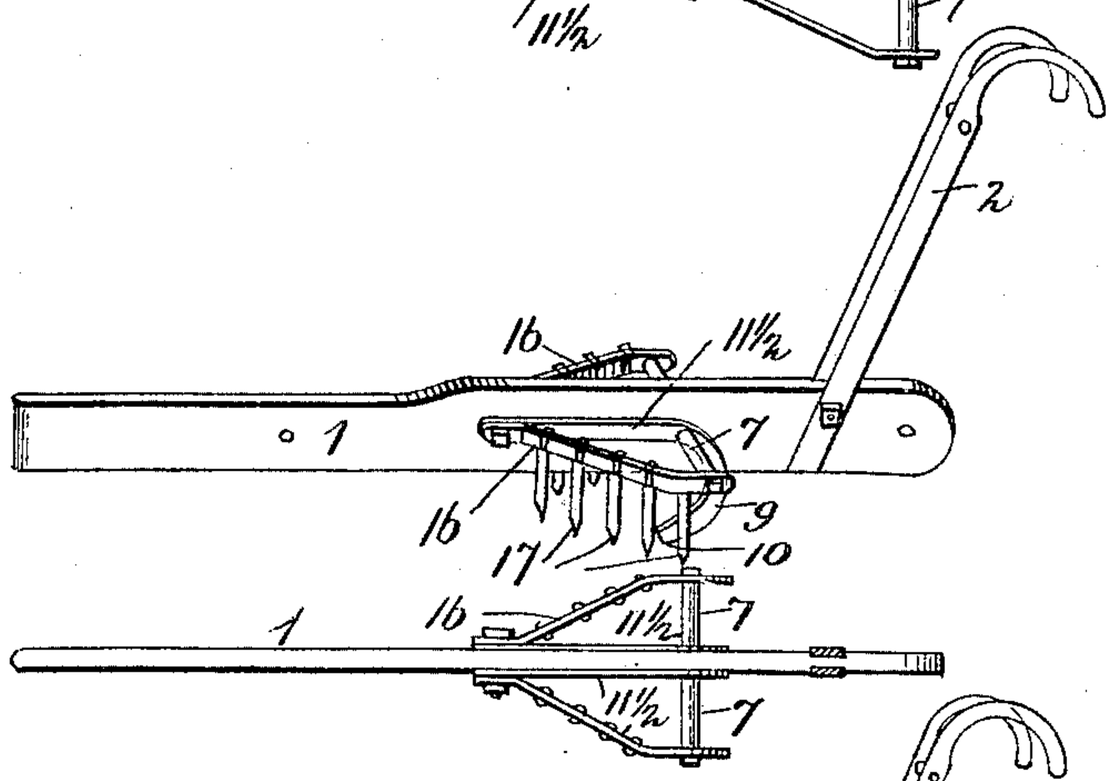


Fig 11.

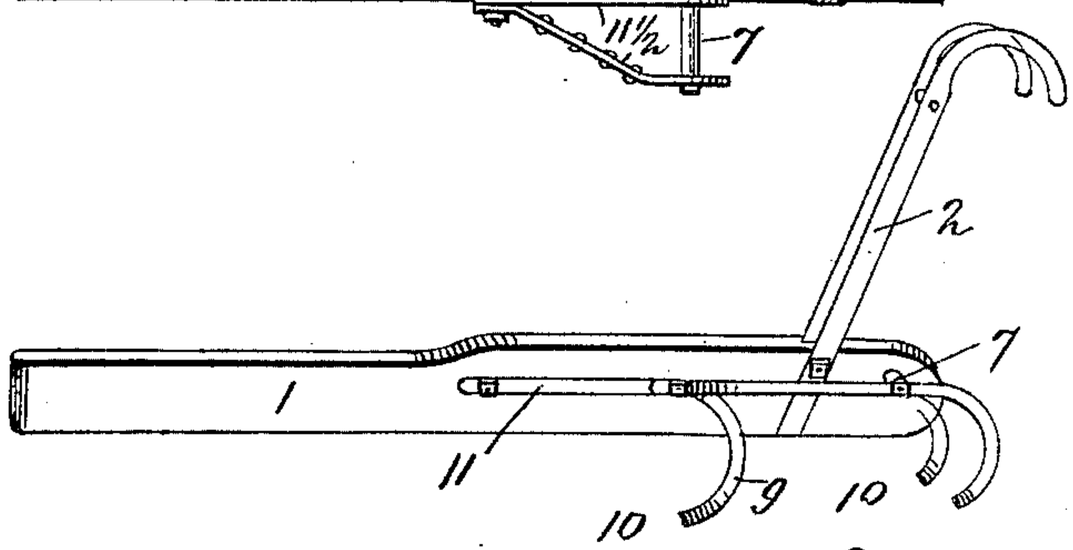
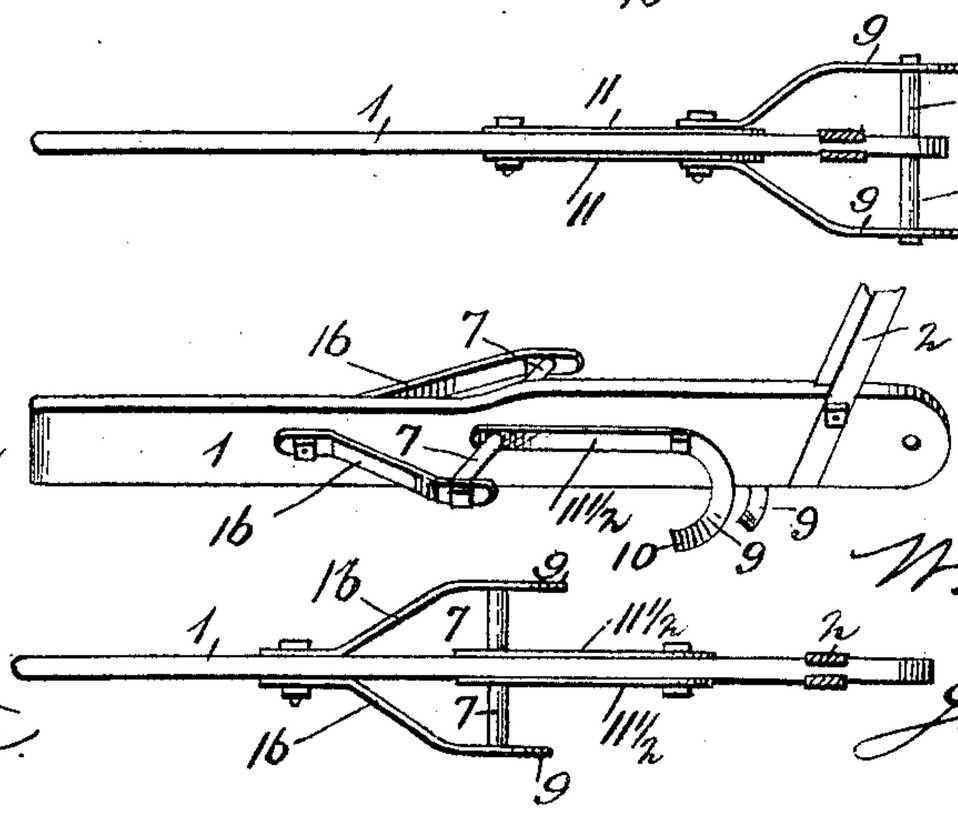


Fig. 12



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UNITED STATES PATENT OFFICE.

WILLIAM A. SHACKELFORD, OF CARROLLTON, GEORGIA, ASSIGNOR OF ONE-HALF TO JAMES N. NIX AND CHARLES R. CARTER, OF SAME PLACE.

COMBINATION-PLOW.

SPECIFICATION forming part of Letters Patent No. 622,719, dated April 11, 1899.

Application filed November 18, 1898. Serial No. 696,759. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. SHACKELFORD, a citizen of the United States, residing at Carrollton, in the county of Carroll and State of Georgia, have invented certain new and useful Improvements in Combination-Plows; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention is a combination-plow, or, in other words, it consists, originally, of a plow-beam and handles, with other pieces by which it may be converted from a single-footed plow to a double-footed or a four-footed, a five-footed plow, or a combination plow and harrow—*i. e.*, one side being plow and the other side being harrow, or both sides harrow.

Figure 1 is a plain plow-stock with four holes through the beam for attaching my different combinations, the base to which I attach my entire combination. Fig. 2 is a double plow composed of Fig. 1 with two feet attached, with two bolts. Fig. 3 is a side cultivator composed of Fig. 1 with three feet attached. Fig. 4 is a gang-plow composed of Fig. 1 with four feet attached, two on right and two on left. Fig. 5 is composed of Fig. 4, a gang-plow with an extra foot attached in front, bent so as to come under the beam. Fig. 6 is composed of Fig. 1 and parts of an iron-tooth harrow attached to said Fig. 1. Fig. 7 is composed of Fig. 1 with right-hand foot attached twelve inches to right of beam, and a left-hand foot may also be attached to left side of beam. Fig. 8 is the same as Fig. 2, varying only in being adjustable by using longer or shorter bolt-sleeves in plowing close to or farther off from the corn and cotton, as their size may demand. Fig. 9 is composed of Fig. 6 with a foot directly in front, which can be attached or detached readily, as the case may demand. Fig. 10 is composed of Fig. 9 with extra foot behind instead of in front and is used in harrowing off and opening cotton-beds all at same through. Fig. 11 is composed of Fig. 1 with three feet attached and is used in putting three furrows to the row, if desirable. Fig. 12 is Fig. 1 with double-harrow frames and two feet in rear of frames.

My invention is described as follows, and consists of a beam 1, provided with handles 2 and perforations 3 for attaching the different parts of my combination, perforation 4 for attaching the handles, and perforation 5 in rear of the handles for attaching the rear parts of the rear plow-feet to when so desired and also for the bolts 6, which pass through the beam and adjusting-sleeves.

The bolt-holes 3 in front of the handles may be and sometimes are used for the bolts which pass through other adjusting-sleeves, which for the purpose of description I also number 7.

6 represents the bolts and nuts used in securing the plow-standards and side frames and braces to the beam.

9 represents plow-standards, each standard having a slotted foot 10 and perforated bend 11, except when the foot is to lie close to the beam 1, in which case the arm is straight.

My combination is provided with a center piece 12, having a perforated straight arm 13, downward part 14, horizontal part 15, plow-standard 9, which, like the other standards, has a slotted foot 10 and forms (with the other four feet) a five-footed plow, Fig. 5.

My combination is also provided with bolt-sleeves 7. It is also provided with harrow-arms 16, which are adapted to and do carry harrow-teeth 17. The standards 9 may also carry harrow-teeth.

My combinations are built as follows:

To the beam 1 I secure standards 9, and thereby have a "double plow," Fig. 2.

For a "side-cultivator," Fig. 3, I attach to beam 1 three standards, the forward standard having a bent arm 11, its foot braced by a bolt 6 and bolt-sleeve 7, the next standard having a straight arm 11½ and foot 10, the third standard having bent arm 11 and foot 10, its foot braced by a bolt 6 and bolt-sleeve 7, and its front end secured by the same bolt that secures the rear end of the middle standard.

To make a "gang-plow," Fig. 4, I attach four standards to beam 1, each standard having bent arms 11, standards 9, and slotted

feet 10, their front ends secured to the beam by bolts and nuts 6, their rear ends braced by bolts 6 and bolt-sleeves 7, these sleeves and bolts being made long or short, so that the feet may be secured close together or wide apart, as desired.

To make a "gang-plow with center point," I add to the gang-plow just described, Fig. 4, a standard 12, consisting of a straight part 13, downward part 14, horizontal part 15, standard 9, and slotted foot 10. The horizontal parts bring the foot 10 just in the center of the beam 1, and consequently equidistant between the rear feet 10, and this center point completes breaking the middle furrow of the space between the rows at one through.

A harrow is made by attaching to beam 1 harrow-frames 16 and harrow-teeth 17 by means of bolts and nuts 6, and bolt-sleeves 7.

A "double plow," Fig. 7, is made by attaching a standard to right-hand side of beam 1 twelve inches therefrom by means of bolts and nuts 6 and bolt-sleeves 7 and standard on the left side of beam same distance therefrom, thus enabling me to cultivate both sides of the row at one through.

The form shown in Fig. 8 is the same as that shown in Fig. 7, except the bolt-sleeves are shorter, bringing the feet closer together to the cotton or corn.

"Harrow with central plow-feet," Fig. 9, is composed of beam 1, harrow-frames 16, teeth 17, and central feet 10 in front of said harrow-teeth.

"Harrow with central rear feet," Fig. 10, is composed of beam 1, harrow-frames 16, harrow-teeth 17, and feet 10 immediately between the two last teeth.

"Three-footed plow," Fig. 11, is composed of beam 1 and three feet 10 to throw three furrows to a row.

"Combined harrow and plow," Fig. 12, is composed of beam 1, harrow-frames 16, harrow-teeth, (not shown in drawings,) and two standards 9.

Thus it will be seen that I manufacture with a few pieces quite a number of plows and harrows at much saving of money in buying and much space in storing the same.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A combination plow and harrow, consisting of the beam 1, having perforations 3, 4, and 5; handles 2; standards 9, having perforated arms 11, 11½ and feet 10; center piece 12 having perforated arm 13, downward piece 14, horizontal piece 15, and foot 10; harrow-frames 16; harrow-teeth 17, bolts and nuts 6, and bolt-sleeves 7, substantially as shown and described and for the purposes set forth.

2. In a combination plow and harrow, the beam, having handles gained into its sides, its rear portion vertically wider than its front portion, said beam provided with horizontal perforations throughout its entire length, and bolts adapted to fit into said perforations, said beam thereby adapted to carry plow or harrow standards, substantially as shown and described.

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

WILLIAM A. SHACKELFORD.

Witnesses:
SIMEON B. WALLACE,
ROBERT E. BONNER.