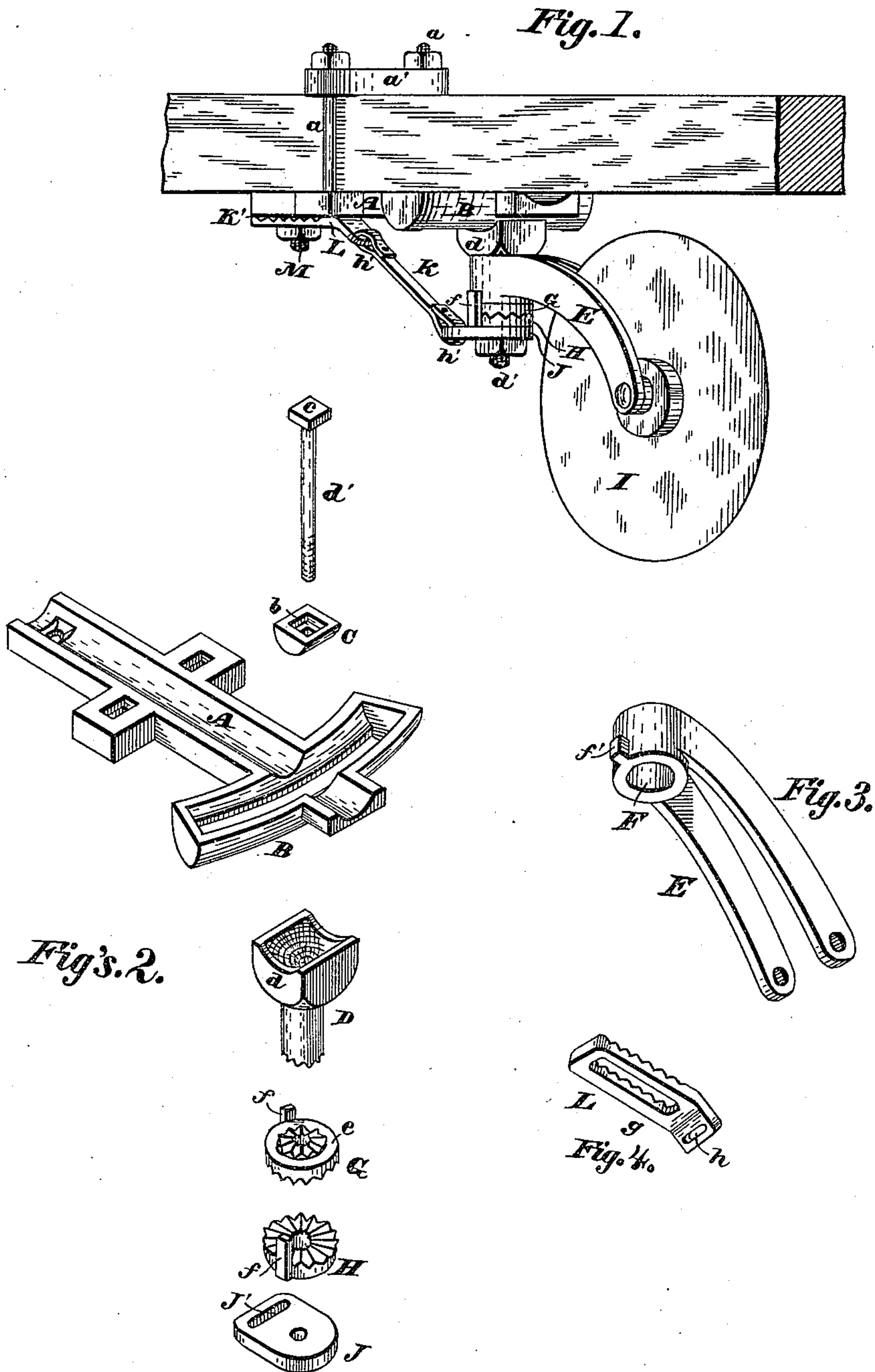


(No Model.)

S. W. BALL.
ROLLING COLTER.

No. 337,295.

Patented Mar. 2, 1886.



WITNESSES
Harry Freese
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UNITED STATES PATENT OFFICE.

SILAS W. BALL, OF CANTON, OHIO, ASSIGNOR OF ONE-HALF TO JOHN L. SPANGLER, OF SAME PLACE.

ROLLING COLTER.

SPECIFICATION forming part of Letters Patent No. 337,295, dated March 2, 1886.

Application filed December 17, 1885. Serial No. 185,896. (No model.)

To all whom it may concern:

Be it known that I, SILAS W. BALL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Rolling Colters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a perspective view showing colter attached to a plow-beam. Figs. 2 are detached views of the frame proper and the different
15 parts belonging to said frame, showing the colter-arms removed. Fig. 3 is a detached view of the colter-arms. Fig. 4 is a detached view of the locking plate or arm.

The present invention has relation to rolling
20 colters; and its nature consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the frame, which is substantially of the form shown, and is attached to the plow-beam in the
30 ordinary manner by means of the clamping-bolts *a* and the cap or plate *a'*.

The frame A is provided with the bent or curved portion B, which forms side arms, for the purpose hereinafter described. The top
35 or upper side of the bent or curved portion B is formed concaved, as shown in Figs. 2, and the bottom or under side of said portion B is formed convexed.

Within the bent or curved portion B is located the block C, said block being so formed
40 that it will fit in the cavity of the portion B. The top or upper side of the block C is provided with the cavity *b*, which is for the purpose of receiving and holding in proper position the bolt-head *c*.

To the bottom or under side of the bent or curved portion B is attached the top or upper end of the connecting-bolt D by means of the grooved head *d* and the clamping-bolt *d'*, said
50 parts being arranged substantially as shown in Fig. 1.

To the connecting-bolt D is attached the colter-arms E by means of the eye F, as seen in Fig. 1. The bottom or lower end of the connecting-bolt D is corrugated or serrated, which
55 receives the top or upper side of the corrugated or serrated washer G. Said washer G is provided with the flat or smooth surface *e*, which receives the under face of the eye F, said washer being located as seen in Fig. 1. The
60 bottom or under side of the washer or plate G is also corrugated or serrated, which receives the top or upper face of the washer or plate H, as seen in Fig. 1.

The washers or plates G and H are each provided with the extensions or stops *f*, and are
65 so arranged that one of these extensions or stops *f* will be upon each side of the extension *f'*. The purpose of the extensions or stops *f* and the extension *f'* is to limit the lateral
70 motion of the colter-arms E and the colter-wheel I.

It will be seen that by my peculiar arrangement I am enabled to adjust the extensions or stops *f* so as to regulate the lateral motion of
75 the colter-arms E and the colter-wheel I. I am also enabled to set the extensions *f* close to the extension *f'*, and thereby hold the colter-arms E and the colter-wheel I rigid.

To the lower portion of the clamping-bolt
80 *d'* is placed the plate or block J, said plate or block being substantially of the form shown in the drawings. This plate or block J is provided with the aperture *J'*, which is for the purpose of attaching the bottom or lower end
85 of the adjusting bar or rod K, as shown in Fig. 1. The bottom or under side of the frame A is corrugated or serrated, as shown at K', Fig. 1, which receives the corrugated or serrated face of the arm L, as shown in said Fig. 1. The
90 arm L is provided with the elongated slot *g*, which is for the purpose of permitting said arm to be moved back and forth on the frame A. This arm L is provided with the aperture *h*, which is for the purpose of attaching the
95 top or upper end of the adjusting rod or bar K, as shown in Fig. 1.

It will be understood that the adjusting rod or bar K may be formed either round or flat, as desired. The ends of said adjusting rod or
100 bar K are provided with the hooks *h'*, which are for the purpose of attaching the block or

plate J and the arm L together, and at the same time forms a hinge or joint, so that the colter-arms and the colter-wheels may be adjusted either to the right or left without displacing said block or plate J and arm L.

For the purpose of adjusting the colter-wheel either up or down, the concave and convex surfaces of the portion B are provided, which receive the block C and the concaved head of the connecting-bolt D, thus permitting said parts to turn on the portion B, the slot or groove *i* being formed wide enough to permit the clamping-bolt *d'* to move with the parts attached to said clamping-bolt *d'*.

In use, when it is desired to raise the colter-wheel I, the clamping-bolts M and *d'* are loosened, when the arm L is forced toward the colter-wheel I until said wheel is raised the desired distance, when the clamping-bolts M and *d'* are tightened. To lower the colter-wheel I, the arm L is forced away from the colter-wheel I.

It will be seen that by providing the portion B the colter proper can be used on either a right or left hand plow.

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

1. The frame A, provided with the bent or curved portion B, said bent or curved portion having convexed and concaved surfaces, substantially as and for the purpose specified.

2. The combination, with the frame A, provided with the bent or curved portion B, of the block C, fitting in said bent or curved portion B, of the connecting-bolt D, provided with the grooved head *d*, the clamping-bolt *d'*, the arms E, and the colter, substantially as and for the purpose specified.

3. The combination, with the frame A, provided with the bent or curved portion B, said bent or curved portion having convexed and concaved surfaces, of the connecting-bolt D, provided with the corrugated or serrated end, the washers G and H, provided with the extensions *f*, the colter-arms E, provided with the eye F, and the stop *f'*, substantially as and for the purpose specified.

4. The combination, with the frame A, provided with the bent or curved portion B, said bent or curved portion having convexed and concaved surfaces, of the connecting-bolt D, the corrugated or serrated plate or arm L, the adjusting rod or bar K, provided with hooks *h'*, and the block or plate J, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SILAS W. BALL.

Witnesses:

HARRY FREASE,
H. B. REED.