No. 752,742. PATENTED FEB. 23, 1904.

J. E. WOOD.

CASTER WHEEL.

APPLICATION FILED FEB. 24, 1902.

NO MODEL.

Fig. 2.

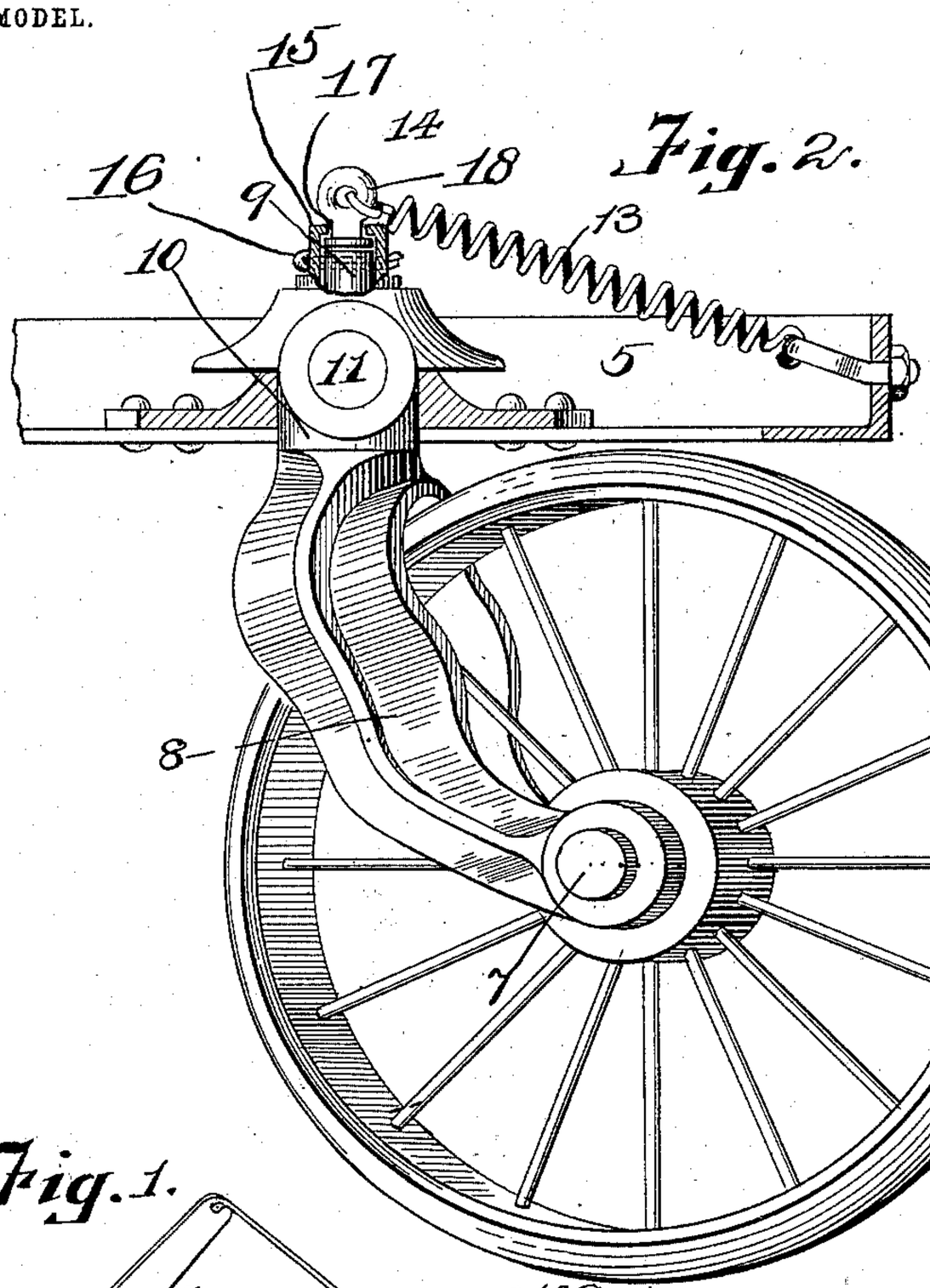


Fig. 1.

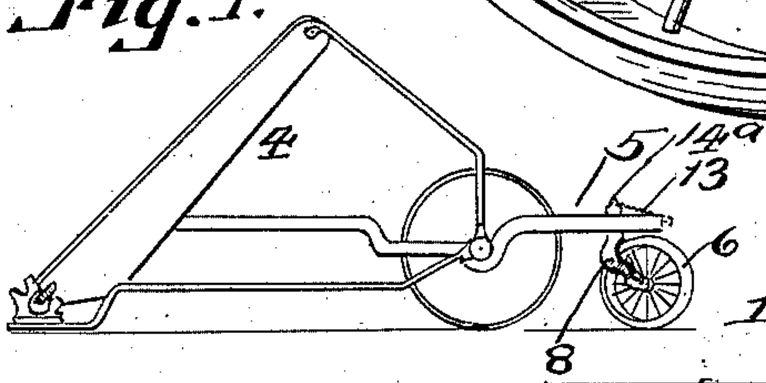
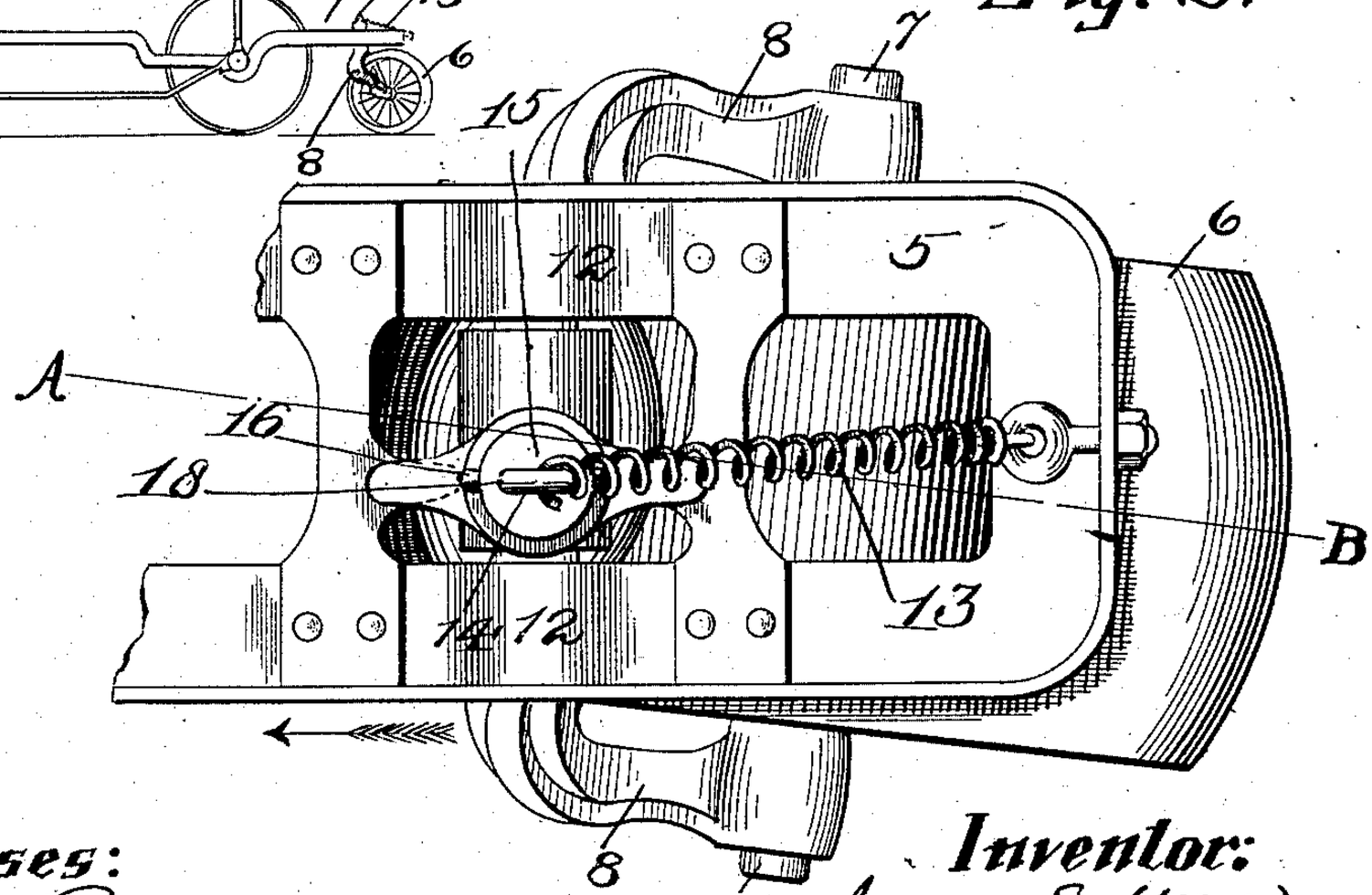


Fig. 3.



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No. 752,742. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

JAMES E. WOOD, OF HARVARD, ILLINOIS, ASSIGNOR TO EDWIN C. HARMON, OF CHICAGO, ILLINOIS.

CASTER-WHEEL.

SPECIFICATION forming part of Letters Patent No. 752,742, dated February 23, 1904.

Application filed February 24, 1902. Serial No. 95,427. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. WOOD, a citizen of the United States, residing at Harvard, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Caster-Wheels, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to caster-wheels; and its object is to provide a caster-wheel which will tend to overcome the side draft of any machine in which it is used—such, for instance, as a corn-harvesting machine or other harvester.

To this end the invention consists of the novel combination and arrangement of parts hereinafter more specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like reference characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a diagrammatic sketch, showing the caster-wheel applied to the rear end of the frame of a corn-harvester. Fig. 2 is a side elevation of a caster-wheel and part of the frame, partly in vertical section; and Fig. 3 is a top or plan view of the caster-wheel and a portion of the supporting-frame.

4 indicates the framework of a machine having a rear framework 5.

6 indicates a caster-wheel having an axle 7, which is journaled in the ends of a yoke 8.

9 indicates a pin which projects forward from and is preferably integral with the yoke 8. The pin 9, as is best shown in Fig. 3, is located a little to one side of the median line of the wheel and yoke—that is to say, a little to one side of a vertical plane which passes through the wheel midway between its edges and parallel therewith and midway between the ends of the yoke. This line is indicated by A B in Fig. 3.

10 indicates a block in which the pin 9 is journaled. The block 10 is provided with trunnions 11, which are journaled in suitable bearings on the framework 5.

13 indicates a spring, one end of which is secured to the frame 5 and the other end to a ring 14, swiveled on the upper end of the pin 9. The spring 13 by its contraction tends to keep the caster-wheel 6 in constant engagement with the ground, the trunnions 11 rotating in their supports for that purpose. By the construction shown the tendency to side draft in the machine will be overcome.

The reference character 15 denotes a cap or covering adapted to fit over the top of the pivot-pin 9 and fastened thereto by a split pin 16. The cap 15 has an opening in its top 17, through which passes the shank of the swivel-ring 14. The swivel-ring 14 is provided with a head 18 at its lower end, which is adapted to rest within the space between the top of the cap 15 and the pivot-pin 9.

By referring to Fig. 3 the arrow shows the direction of the progress of the machine. The machine in this case, as shown, is placed a little to the left, facing in the direction of the line of draft of the median line of the wheel. This will cause the caster-wheel, as soon as the machine is moved forward, to assume the position shown in Fig. 3. In this case the side draft is assumed to be upon the side of the machine which would tend to make the machine bear to the right, facing in the direction of the line of draft. The caster-wheel taking the position shown would act in the manner of a rudder and tend to throw the machine to the left of the line of draft, thus counteracting the side draft to the right. Of course if the side draft were to the left, facing in the direction of the line of draft of the machine, the pin would be placed upon the other side of the center, causing the caster-wheel to turn in the opposite direction. (Shown in Fig. 3.) In other words, the position of the pin, whether to the left or the right of the median line of the wheel, will depend upon the direction in which the side draft will tend to turn the machine out of the line of straightforward progression.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a frame, of a yoke, a caster-wheel journaled thereon, a pivot-pin on said yoke and located to one side of the median line of said wheel and said yoke, a rotatable support carried by the frame and adapted to rotatably support said pivot-pin, and a spring connected at one end with said pin and at its other to said frame, said spring adapted to yieldingly restrain the upward rocking of said yoke and thereby keep said caster-wheel in yielding engagement with the ground, substantially as described.

2. The combination with a frame, of a yoke, a caster-wheel journaled thereon, a pivot-pin on said yoke and located to one side of the median line of said wheel and said yoke, a trunnion-support adapted to rotatably support said pivot-pin, bearings carried by said frame for said trunnion-support, and a spring connected at one end with said pin and at its other end to said frame, said spring adapted to yieldingly restrain the upward rocking of said yoke on its trunnion-supports and thereby retain said caster-wheel in yielding engagement with the ground, substantially as described.

3. The combination with a frame, of a yoke, a caster-wheel journaled therein, a pivot-pin on said yoke and located to one side of the median line of said wheel and said yoke, a trunnion-support adapted to rotatably support said pivot-pin, bearings for said trunnion-support, a swivel, and a spring connected at one end to said swivel and at its other end to said frame and adapted to keep said caster-wheel in engagement with the ground, substantially as described.

JAMES E. WOOD.

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