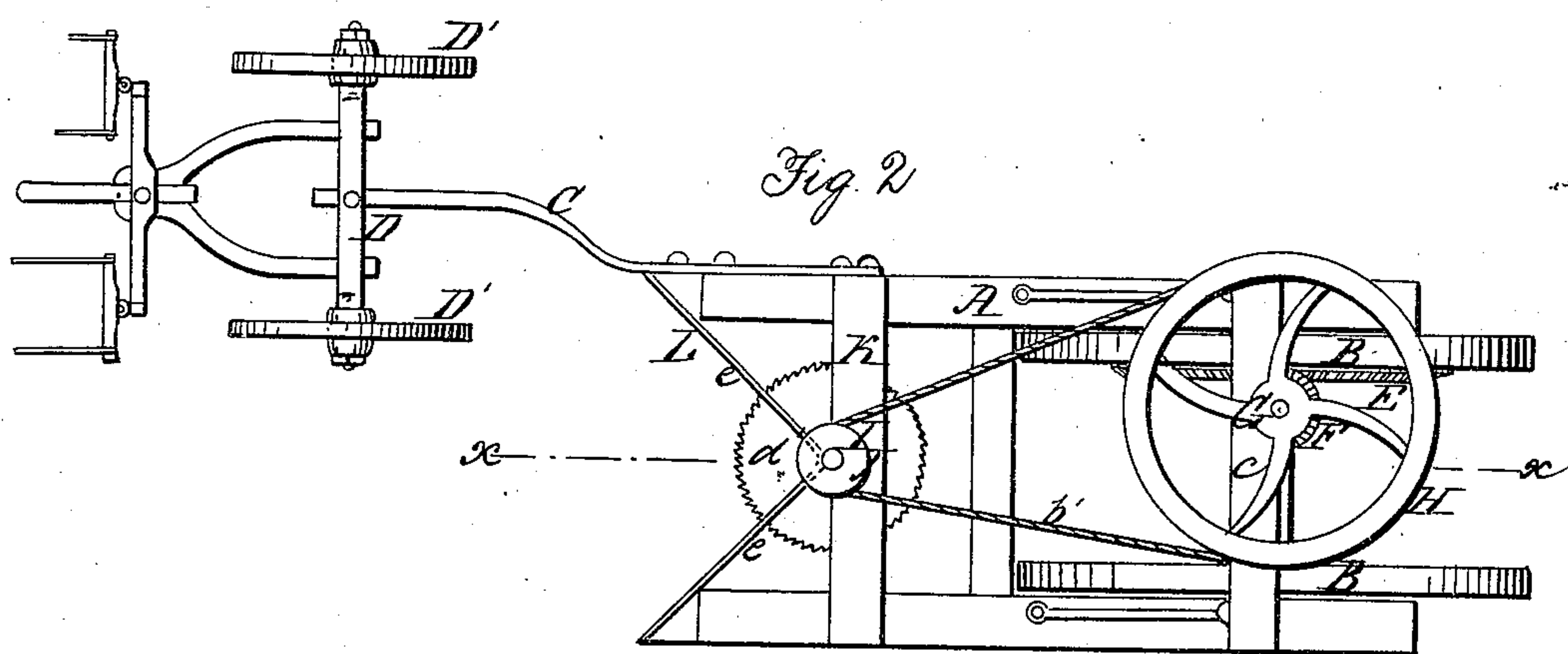
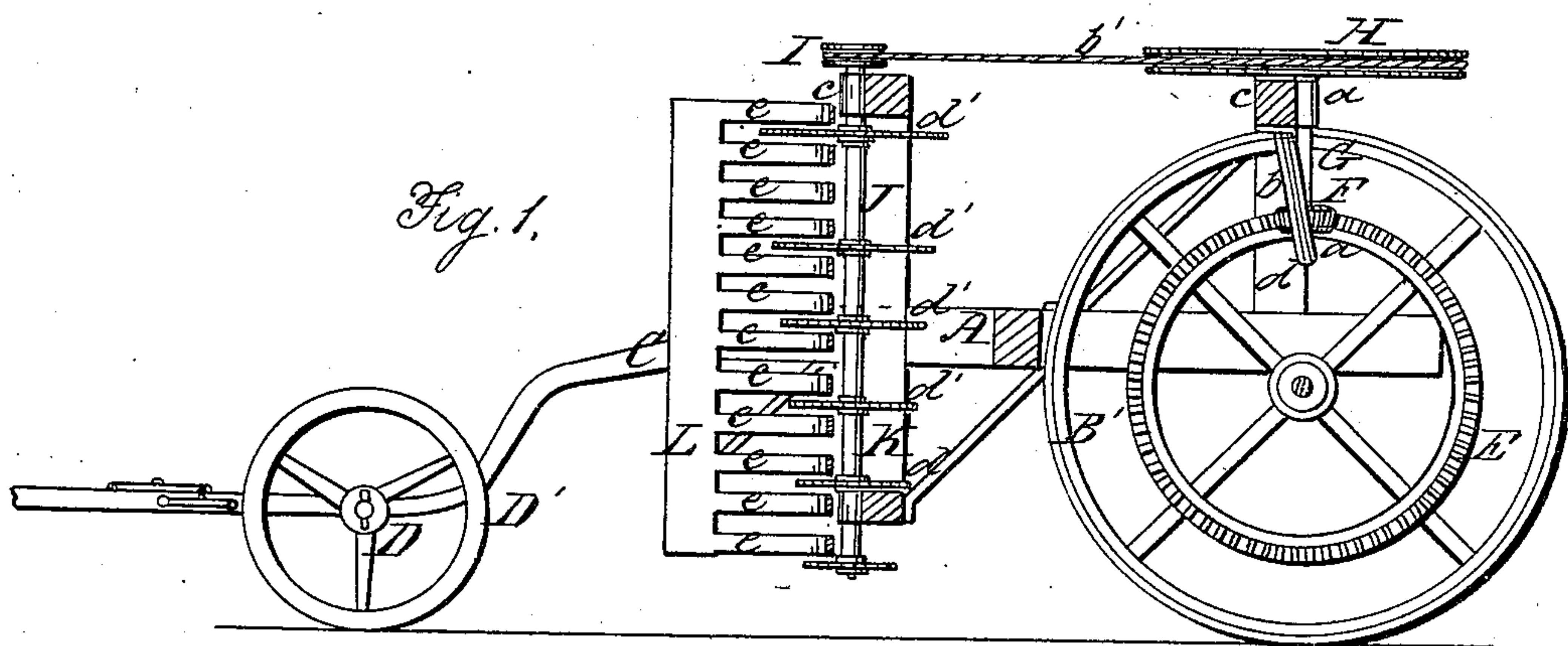


J. W. BOCAGE.

Stalk-Chopper.

No. 13,538.

Patented Sept. 11, 1855.



UNITED STATES PATENT OFFICE.

J. W. BOCAGE, OF CYPRESS MILLS, ARKANSAS.

IMPROVEMENT IN MACHINES FOR CUTTING STANDING COTTON-STALKS.

Specification forming part of Letters Patent No. **13,538**, dated September 11, 1855.

To all whom it may concern:

Be it known that I, J. W. BOCAGE, of Cypress Mills, in the county of Jefferson and State of Arkansas, have invented a new and Improved Machine for Cutting Standing Cotton-Stalks; 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 part of this specification, in which—

Figure 1 is a longitudinal vertical section of my improvement, *x x*, Fig. 1, showing the plane of section. Fig. 2 is a plan or top view of same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and improved machine for cutting standing cotton-stalks; and it consists in the employment or use of a series of circular saws placed upon a vertical shaft and rotating between the bars of a frame, the frame and saws being attached to a proper carriage, and arranged as will be presently shown and described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents a rectangular horizontal frame, which may be constructed of wood and of any proper dimensions. The back part of this frame is supported by two wheels, B B', and the front part is attached at one side to a perch or reach, C, having an axle, D, and two wheels, D' D', at its outer end. The perch or reach C and axle D may be taken from any ordinary wagon and applied to the frame A when the machine is to be used.

To the spokes of the wheel B' of the frame A there is secured a beveled cogged wheel, E, which gears into a pinion, F, on the lower end of a small vertical shaft, G. This shaft works in suitable bearings, *a a*, attached to a pendent, *b*, and a cross-piece, *c*, which is connected to the upper ends of uprights *d d*, attached to the frame A.

To the upper end of the shaft G there is attached a pulley, H, having a belt or chain, *b'*, passing around it, said belt or chain also passing around a pulley, I, on the upper end of a vertical shaft, J, which works in bearings *c' c'*, attached to an upright frame, K, secured to the front part of the horizontal frame A. If a chain, *b'*, is used instead of a belt, the pulleys H I may have their peripheries provided with teeth to catch or pass into the links of the chain in order to prevent slipping.

Upon the vertical shaft J there are secured a series of circular saws, *d'*. Six are represented in Fig. 1, but more or less may be used. These saws vary in size or diameter, the lower one being the smallest, and the others gradually increasing in diameter from the lower one upward, the uppermost saw being the largest. The saws are placed at suitable and equal distances apart upon the shaft J.

To the front end of the frame A there is attached a metallic frame, L, composed of horizontal bars *e*, which are placed at suitable distances apart and bent in right-angular form, as shown in Fig. 2.

The vertical shaft J is placed just back of the angles of the bars, and the saws *d'* pass or work between the bars *e* of the frame L, about one-quarter of the disks of the saws projecting through or between the bars. (See Fig. 2.)

Operation: The team is attached to a draft-pole connected with the axle D, and as the machine is drawn along the cotton-stalks are caught by the frame L and forced or bent into or toward the angles of the bars *e* and are cut by the saws *d'*, which rotate in consequence of motion being communicated to the shaft J from the driving-wheel B' by the belt or chain *b'* and gearing E F, and as the saws decrease in diameter from the uppermost one downward, it follows as a matter of course that the upper parts of the stalks will be cut first, and the several saws will cut the stalks successively from their upper to their lower ends.

The above machine will operate well and the saws will not get out of repair. Blades or knives do not answer a good purpose, as they soon become dull and considerable power is required to operate them. Machines with blades or knives have been invented; but they are not in general use for the reason above stated.

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

The employment or use of a series of circular saws, *d'*, placed upon a vertical shaft, J, and rotating between the bars *e* of a metallic frame, L, the saws and frame being placed upon or attached to a proper carriage, and arranged substantially as shown, for the purpose set forth.

J. W. BOCAGE.

Witnesses:

GEORGE BUDIE,
F. McNALLY,
F. G. FANGINE.