

(Model.)

J. B. CHRISTIAN.
CULTIVATOR.

No. 284,379.

Patented Sept. 4, 1883.

Fig. 1.

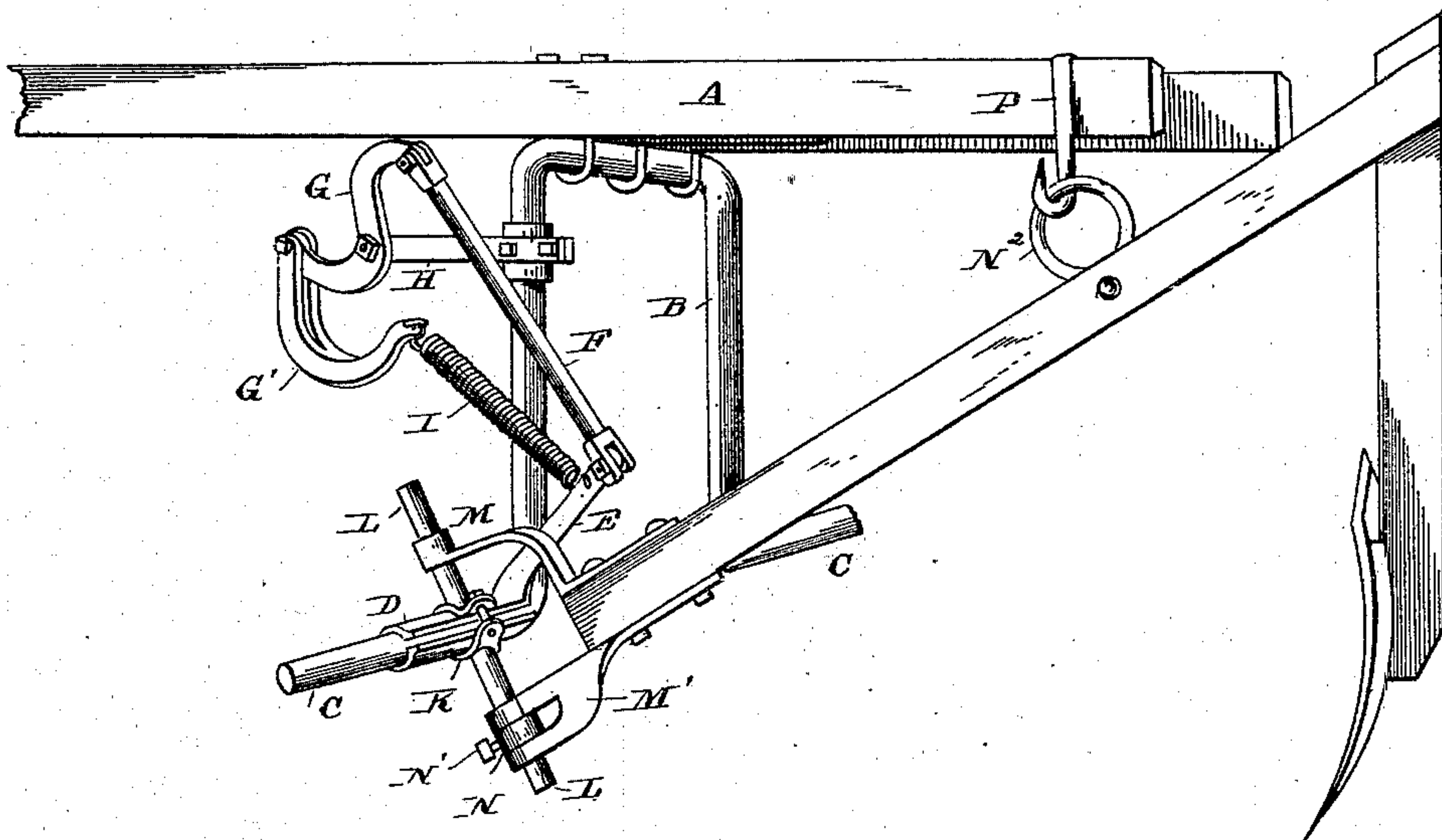
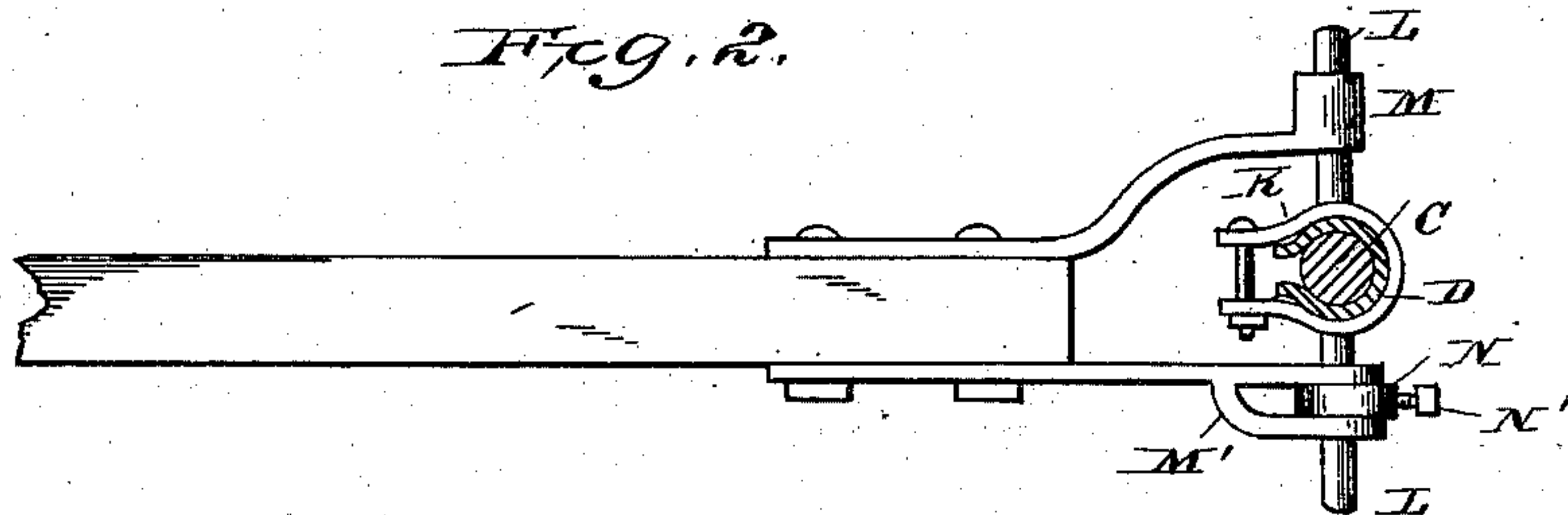


Fig. 2.



Witnesses.
Edwin L. Yerrill.
J. J. McCarthy.

Inventor.
John B. Christian
C. M. Alexander.
Attorney.

UNITED STATES PATENT OFFICE.

JOHN B. CHRISTIAN, OF HAMBURG, IOWA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 284,379, dated September 4, 1883.

Application filed August 1, 1882. Renewed May 31, 1883. (Model.)

To all whom it may concern:

Be it known that I, JOHN B. CHRISTIAN, of Hamburg, in the county of Fremont, and in the State of Iowa, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in cultivators; and it has for its objects to provide certain means for rendering the elevation of the gang-beams more convenient and easily accomplished, for coupling the same to the cultivator-frame, and for adjusting said beams upon the frame, as more fully hereinafter set forth. The above-mentioned objects I accomplish by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a portion of a cultivator, showing my invention; and Fig. 2, a detached view of one of the gang-beams, showing the coupling devices partly in section and partly in elevation.

The letter A indicates the upper beams of the cultivator, and B a bent frame upon which it is supported, the said frame being bent laterally and horizontally outward, forming spindles C for the wheels.

The letter D indicates a split sleeve surrounding the spindle, (one being provided for each,) the said sleeve being formed with or having secured to it an arm, E, which is connected by a rod, F, with a bent lever, G, fulcrumed to an arm, H, bolted to the upper part of the frame B. The rod F is bifurcated, and is connected to the arm and lever, respectively, by means of pivots, and the bent lever, at its forward end, is pivoted to the bifurcated end of a bent link, G', the other end of which is hooked, and is connected with the arm E by means of a spiral spring, I.

The letter K indicates a clamp partially surrounding the split sleeve, the said clamp being provided with pins L, to which are pivoted the ends of the metallic extensions M and M' of the gang-beam. The clamp is provided with a clamping-screw and bolt, by means of which it can be tightened in any position upon the sleeve longitudinally. The lower extension of the gang-beam is bifurcated, and between the members thereof is located a collar, N, through

which the lower pin, L, loosely passes, the collar being provided with a set-screw, N', by means of which it can be tightened upon the shaft in order to give the gang-beam a slight vertical adjustment. The gang-beams are provided with rings N², which are adapted to be secured to hooks P, to hold the gang-beams in an elevated position.

The operation of my invention is as follows: When the drag-beams are in position to permit the shovels to enter the ground, they are horizontal, or nearly so, in which position the spring is at its extreme tension, and the levers and arms are in such position that they are automatically locked. When it is necessary to elevate the drag-beams, in order to raise the shovels out of the ground, raising the beams at the rear end shifts the levers, so as to allow the spring to exert its retractile force and assist in elevating the beam. By means of the adjusting mechanism the beams may be adjusted vertically and laterally to a proper extent with respect to the frame.

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

1. The combination, with the axle-frame, bent as described, of the split sleeve loosely mounted on the wheel-spindle, and having a projecting arm connected with a bent lever fulcrumed to an arm attached to the frame, the bifurcated bent link pivoted to the bent lever, and the spiral spring connecting the link and arm, substantially as specified.

2. In combination with the split sleeve mounted on the spindle of the bent frame, the movable clamp, its pins and clamping-screw, and the drag-beam and its extensions, in which the pins have bearings, substantially as and for the purposes set forth.

3. In combination with the lower bifurcated extension of the drag-beam and the lower pin of the clamp, the loose collar mounted on the lower pin of the clamp, and the set-screw adapted to bind the collar to the pin, substantially as specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 6th day of July, 1882.

JOHN B. CHRISTIAN.

Witnesses:

GEO. J. SHEPARD,
J. P. BEACH.