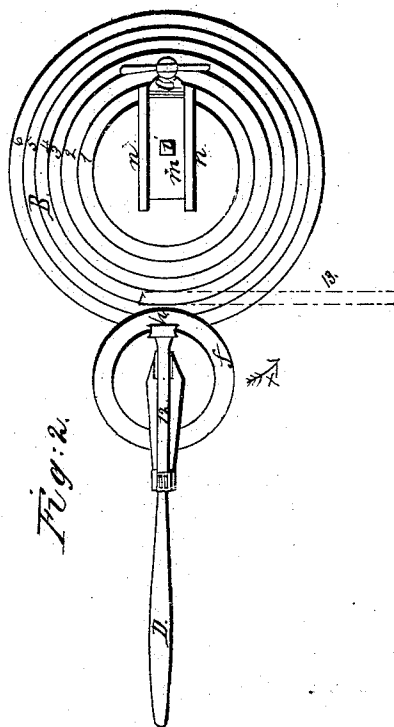
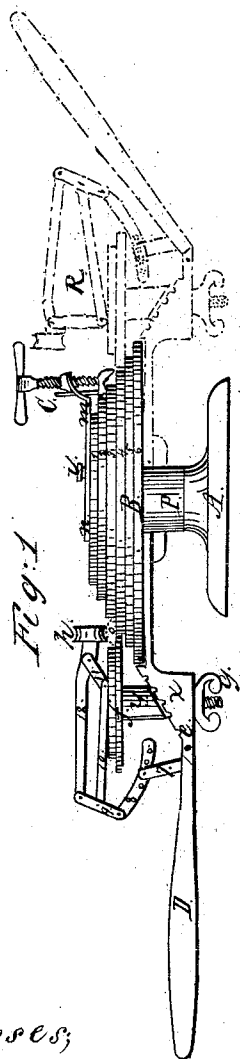


*G. W. Heckart,*  
*Making Fifth Wheels,*  
*N<sup>o</sup> 81,902, Patented Sep. 8, 1868*



*Witnesses,*

*A. C. Johnson,*  
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*Inventor,*

*Geo. W. Heckart,*  
*By his Attorney,*  
*Amos J. Shurton.*

# United States Patent Office.

GEORGE W. HECKART, OF COLUMBIANA, OHIO, ASSIGNOR TO HIMSELF  
AND CHRISTIAM KRAMER, OF SAME PLACE.

*Letters Patent No. 81,902, dated September 8, 1868.*

## IMPROVEMENT IN FIFTH-WHEEL BENDER.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE W. HECKART, of Columbiana, in the county of Columbiana, and State of Ohio, have invented a new and useful Improvement in Machine for Bending "Fifth-Wheels;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

The nature of my invention consists in the use of a series of stationary forms, provided with an adjustable clamp, said forms and clamp being used in connection with an adjustable bending-device, the whole being constructed, arranged, and operating in the manner hereinafter described.

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

In the accompanying drawings, which form part of my specification—

Figure 1 is a side elevation of my improvement for bending fifth-wheels for carriages:

Figure 2 is a top view or plan of the same.

In the drawings, A represents the pedestal of the machine, upon which is secured a series of forms, B, numbered 1, 2, 3, 4, 5, and 6. On the upper face of the form 1 are guides *n*, in which is placed a sliding plate, *m*, which is provided with a clamping-screw, C. The sliding plate *m* is provided with a set-screw, *i*, for holding it in a fixed position.

The bending-device consists of a wheel, *f*, which rotates on the upright, *y*, which is held in the desired position on the arm *x* by means of a screw and nut, *g*. The arm *x* is pivoted on the pedestal A at P. To the arm *x*, at *e*, is pivoted the lever D, to which is attached a lever, 7, which is connected to lever 8, which is connected to lever 9, which is pivoted to an arm, 10, which is secured on the upper end of the upright *y*. To the upper end of lever 9 is attached a lever, 12, near the front end of which is attached a link, 11, the lower end of which is pivoted to the inner end of the arm 10. The whole of the parts marked 7, 8, 9, 10, 11, and 12, form a kind of toggle-lever, which is made operative through the medium of the lever D. On the end of the lever 12 is pivoted a grooved roller, *h*, the groove of which is adapted to the form of the upper side of the iron of which the "fifth-wheel" is formed, as indicated by the dotted lines at *o* in fig. 1. The upright, *y*, may be moved up or down on the arm *x*, so as to adapt the bending-device to suit any one of the six forms, and the plate *m* may be moved so as to bring the clamping-screw so that it will hold the iron down on any of the forms desired.

As the construction and arrangement of my improvement in machines for bending "fifth-wheels" will readily be seen and understood by the skilful mechanic from the foregoing description, and by reference to the accompanying drawings, I will therefore proceed to describe its operation, which is as follows:

The iron for forming the "fifth-wheel," after it has been provided with the necessary "clips," which term is well understood by the carriage-blacksmith, is placed on the form, as indicated by the red lines 13. (The bending-device should be turned around, so that the grooved roller should be near the clamping-screw C, which should be brought down on the end of the iron to hold it in a fixed position.) Now, by pressing down on lever D, the roller *f* will be brought down on the iron, as indicated at *o* in fig. 1. The lever D is now forced around in the direction indicated by the arrow marked *x'*, which will cause the wheel *f* to force and bend the iron to the form upon which it is placed. By the arrangement of the levers which operate the roller *f*, the roller can be readily raised up and shifted back, so as to pass any "clip" which may be made on the iron of the "fifth-wheel." This raising and shifting of the roller is shown by the red lines marked R, in fig. 1.

Having thus described the nature, construction, and operation of my improvement, what I claim as of my invention, is—

A bending-machine for "fifth-wheels," consisting of a series of forms, B, clamping-screw, C, and adjustable bending-device, formed of the arm *x*, rollers *f* and *h*, levers D, 7, 8, 9, and 12, link 11, and arm 10, the whole being constructed, arranged, combined, and operating as herein described and for the purpose set forth.

GEORGE W. HECKART.

Witnesses:

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