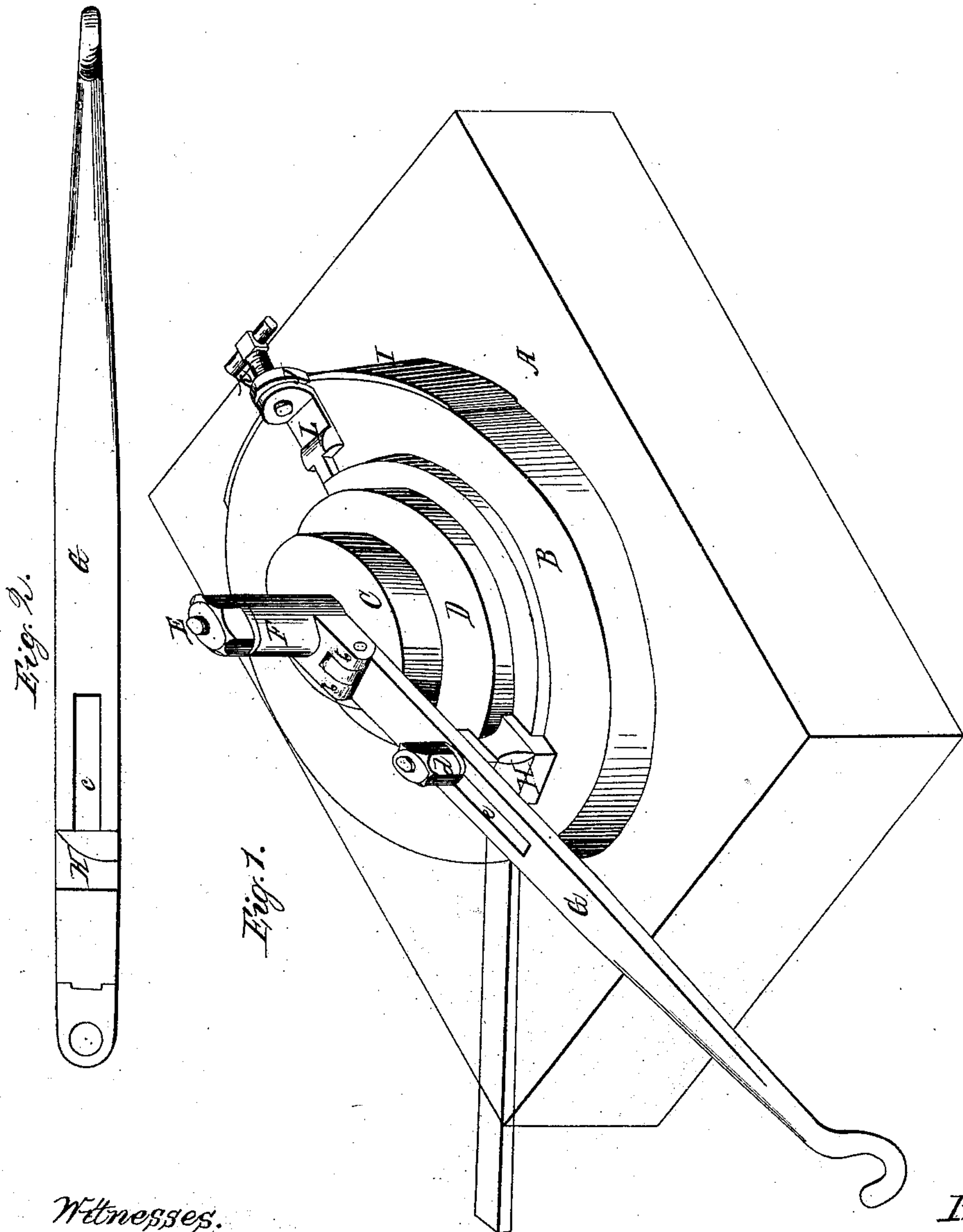


C. Kieser,

Making Fifth Wheels,

N^o 32,947.

Patented July 30, 1861.



Witnesses.
Otto H. Wright
J. W. Pendle

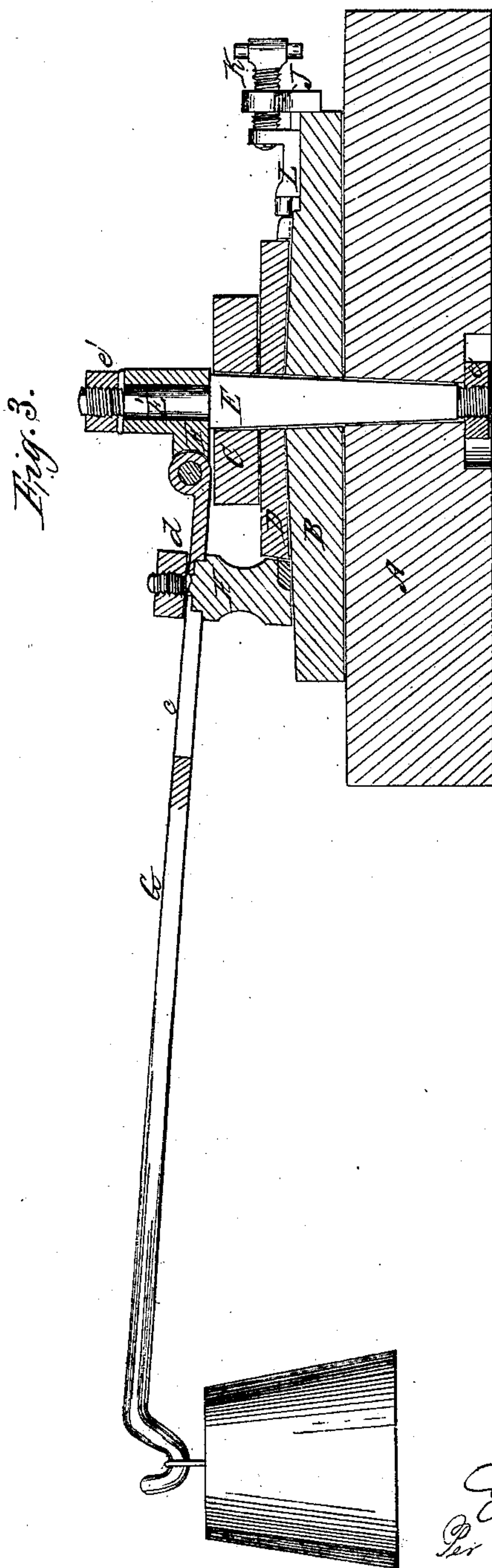
Inventor.
C. Kieser
Munn & Co. Attorneys

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October 1891
L. B. Emery

Inventor:

Charles Kesson
Per *Wm. W. Kesson*
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES KIESER, OF BALTIMORE, MARYLAND.

MACHINE FOR BENDING FIFTH-WHEELS FOR WAGONS.

Specification forming part of Letters Patent No. 32,947, dated July 30, 1861; Reissued May 28, 1872, No. 4,919.

To all whom it may concern:

Be it known that I, CHARLES KIESER, of the city of Baltimore and State of Maryland, have invented a new and Improved Machine for Bending Fifth-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my said machine. Fig. 2 is an underside view of the lever and set. Fig. 3 is an axial section of the complete machine.

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

In constructing "fifth wheels" for carriages, great difficulty is experienced owing to the necessity of bending the iron edgewise. By the usual mode a great amount of labor by a skilful workman is necessary to produce the accurate form and perfect finish required.

The subject of my invention is a machine by means of which these objects may be accomplished with great rapidity and with but little skill or labor, and the invention particularly consists, 1st, in the use of a stationary disk and clamping device, constructed as hereinafter explained in connection with movable pattern rings, for the formation of fifth wheels of various sizes. 2nd, in the combination of a stud shaft hinged lever and adjustable set, for bending fifth wheels, as hereinafter explained.

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

A, is the base of the machine, which may be constructed of cast iron. B, D, and C, are circular plates, also of cast iron. The base A, and plates B, D and C, are all perforated centrally with square apertures tapering downward to receive a tapering square shaft E, by means of which the plates are secured to the base by the application of a nut e.

E', is a stud journal projecting upward from the shaft E, and constituting a pivot for a socket F, which is secured thereon by a nut e'.

G, is a lever hinged to the ears b, b, of the socket F.

H, is a "set" or former provided with a screw threaded neck which is inserted through the slot c, in the lever G, and pre-

vented from lateral outward movement by means of a screw nut d, and the vertical taper of the lever, it being the largest the farthest from its axis. The form of the under side of the set is shown in Fig. 2.

I, is a flange secured upon the periphery of the circular plate B and provided with an ear J into which a set screw K of any suitable length is fitted.

L, is a clamp dovetailed into the face of the circular plate B and connected at its rear end to the end of the set screw by means of which it is moved radially in or out.

When it is desired to bend a fifth wheel, the lever is turned up out of the way and the metal strip having previously been cut to the proper length, one end is secured by the clamp K, L. The lever is then turned down and the former H, placed so as to just pass over the end of the strip. By moving the lever around upon its pivot the strip of metal is pressed around the periphery of the pattern ring D and thereby bent into the form of a ring with a flat surface, the inner diameter of which is equal to that of the outer diameter of the pattern ring. All tendency of the wheel to twist while being bent around the pattern ring is avoided by pressure upon the lever as it is revolved. For this purpose a suitable weight is suspended from the hook at the end of the lever.

The upper surface of the plate B, being of convex form imparts a concavity to the under surface of the ring produced. At the same time the outer edge of the said ring is swaged down by the form of the set H. This action adapts the wheels to fit together in pairs without the necessity of hand fitting. To permit the easy removal of the fifth wheels when made the ring D, is made of slightly smaller diameter on its upper side. Each ring as formed is released by retracting the clamp jaw L, and elevating the lever G, and may then be lifted off without any difficulty. When it is desired to produce fifth wheels of another size the nut e, is removed the shaft E, withdrawn and the pattern ring or plate D, replaced by another of the size required which is then securely clamped between the plates B and C, as before by the taper form of the shaft. The nut e', at top is employed only to retain the socket F, in position. The clamping together of the plates by the nut

c, therefore, offers no impediment to the rotation of the socket.

The machine is of simple and cheap construction and is not liable to derangement.

5 The use of the movable pattern disks (D) adapts the machine to bend fifth wheels of any required size, on the same level in respect to the clamp and bending tool. It also permits the ready replacement of a worn
10 pattern with one of accurate form and size, without other detriment to the machine.

The construction of the machine is such as to afford great facility for removing the fifth wheels when bent.

15 The surfaces of the fifth wheels do not require straightening by hand after leaving the machine but require only welding together at their ends.

20 All wheels made upon any one pattern ring are of the same size and do not require to be turned to match each other.

The tool H, is secured against radial displacement by a simple and effective means and admits of ready adjustment, or the tool

may be conveniently replaced by that of 25 different shape in order to produce fifth wheels of semi-circular hexagonal or any other desired section.

What I claim as new and of my invention herein, and desire to secure by Letters Pat- 30 ent, is:—

1. The combination of the movable pattern D, convex plate B, clamping plate C, tapering shaft E, and sliding clamp L, all constructed and operating in the manner 35 and for the purposes explained.

2. The combination of the hinged tapering lever G *c*, stud shaft E, and adjustable set H, constructed and operating substantially as and for the purposes set forth. 40

The above specification of my improved machine for bending fifth wheels for wagons signed this third day of April 1861.

CHARLES KIESER.

Witnesses:

W. E. BENDRÉ,

JAMES H. GRIDLEY.