

(No Model.)

J. RIGBY.

DIE FOR FORGING CAR WHEELS.

No. 362,112.

Patented May 3, 1887

Fig. 1.

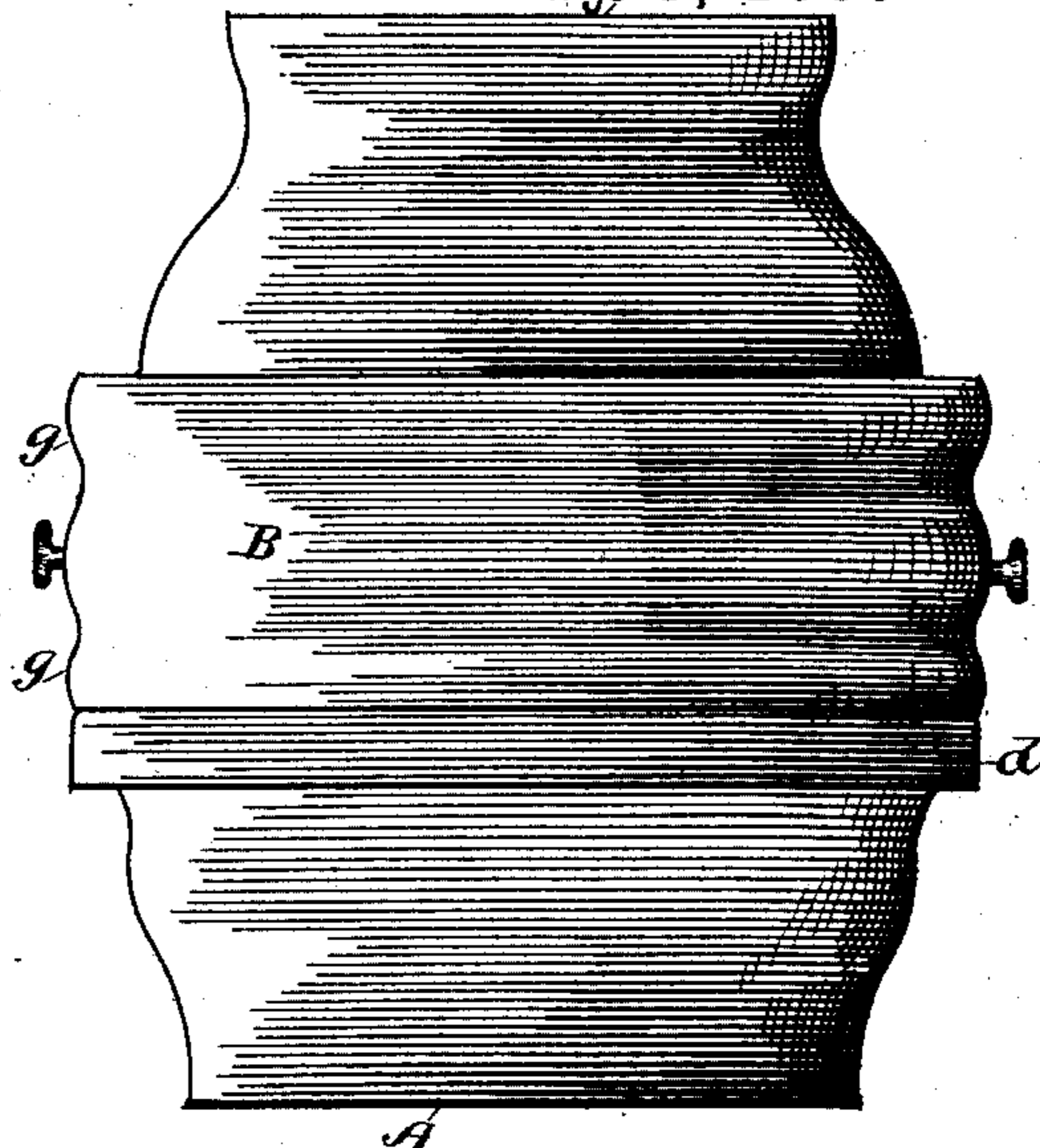


Fig. 3.

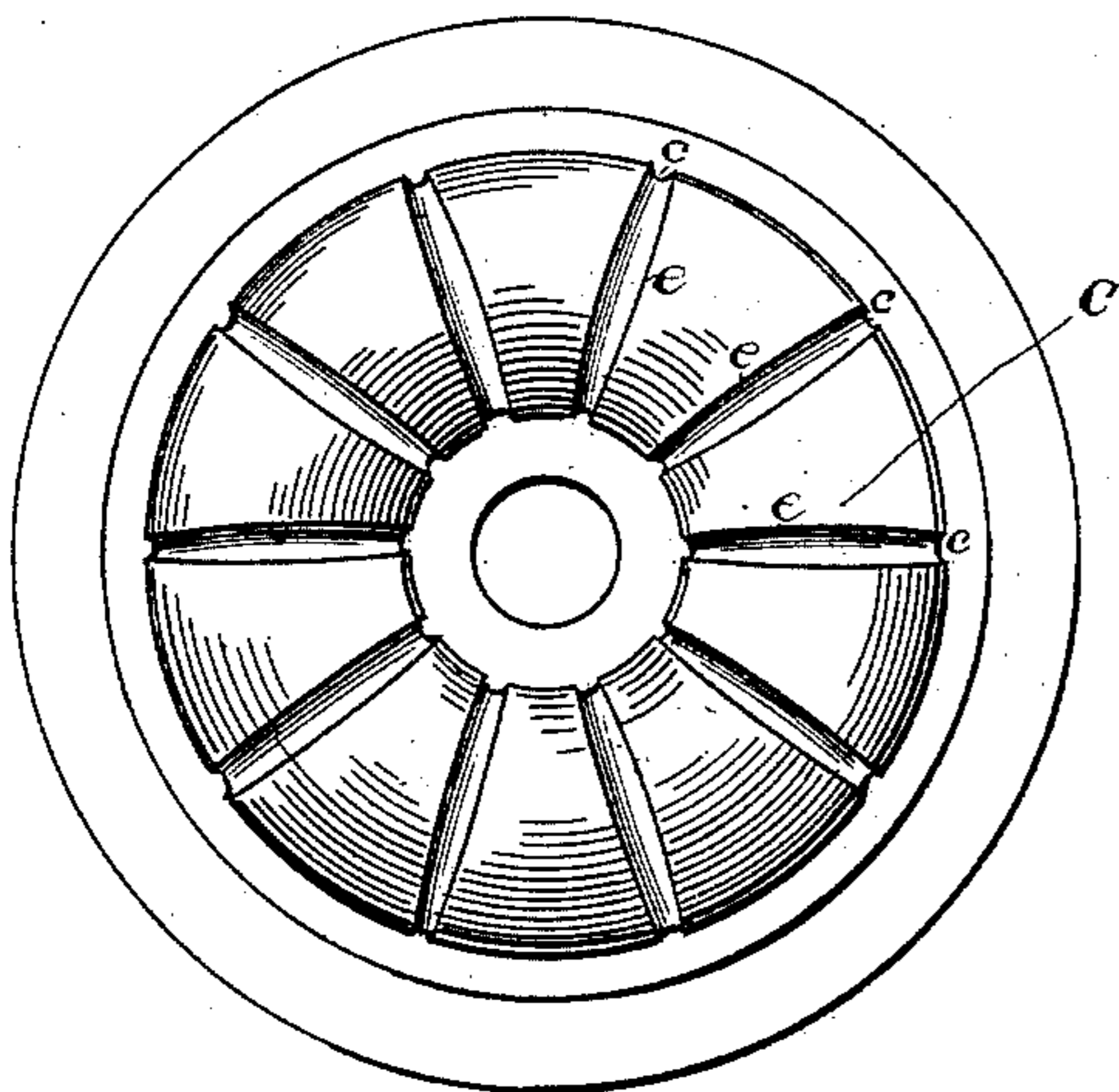
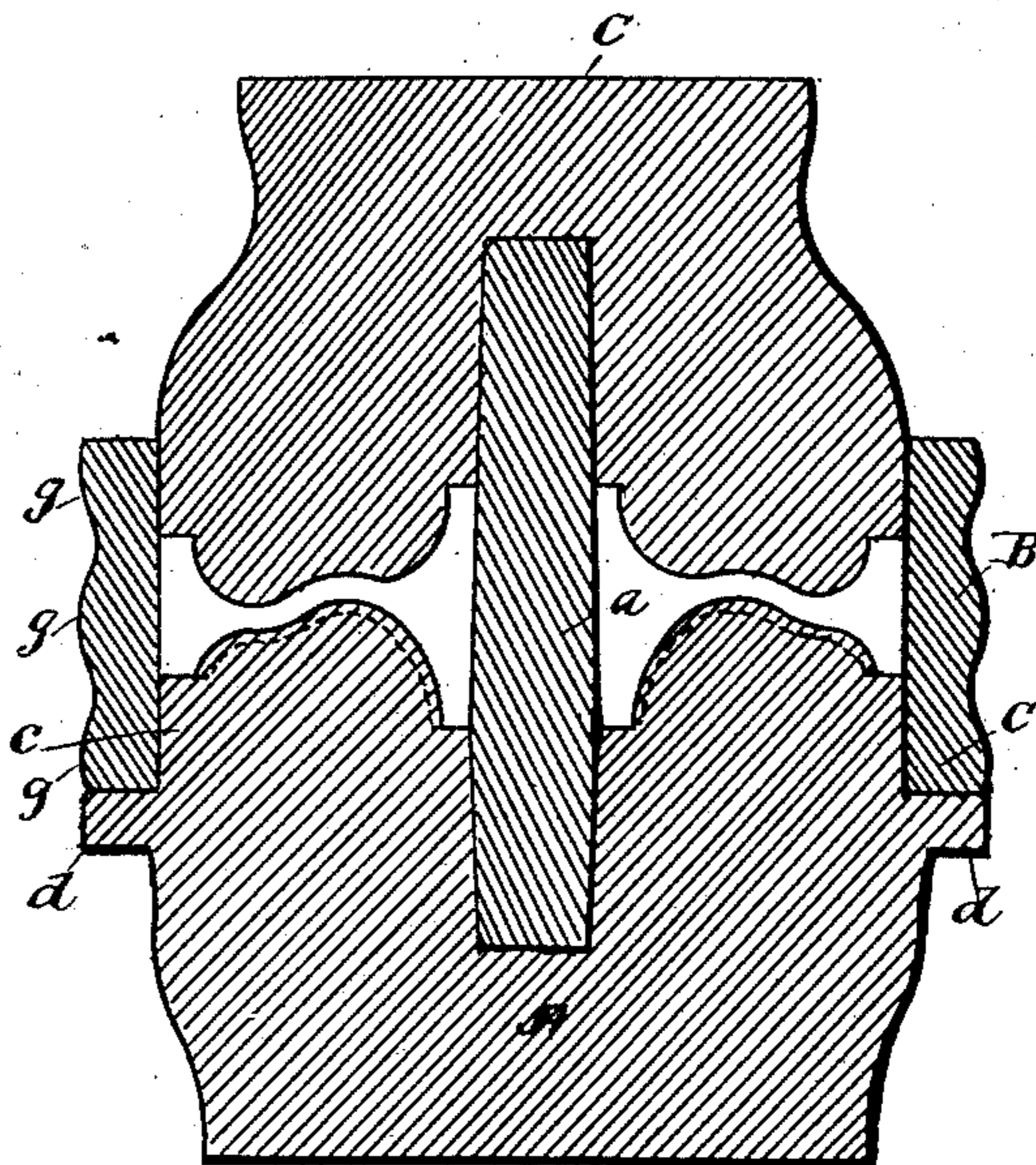


Fig. 2.



Witnesses,

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UNITED STATES PATENT OFFICE.

JAMES RIGBY, OF MINNEAPOLIS, ASSIGNOR TO THE RIGBY CAR WHEEL COMPANY, OF ST. PAUL, MINNESOTA.

DIE FOR FORGING CAR-WHEELS.

SPECIFICATION forming part of Letters Patent No. 362,112, dated May 3, 1887.

Application filed March 8, 1886. Serial No. 194,460. (No model.)

To all whom it may concern:

Be it known that I, JAMES RIGBY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Improvement in the Manufacture of Car-Wheels and Apparatus for use in the Manufacture Thereof, of which the following is a description.

10 In the accompanying drawings, Figure 1 is a perspective view of a pair of dies and a ring used in the manufacture of my improved car-wheel. Fig. 2 is a vertical section of the same. Fig. 3 is a bottom plan view of the upper die.
15 The object of my invention is to produce a light, strong, and durable car-wheel in the shortest possible time and with the least expense of material and labor; and to this end it consists in forming a pair of dies, substantially such as shown in cross section in Fig. 2, the faces of which are substantially alike, except for the depressions or intaglio radial ribs *e e* and the recesses *c c*, which form corresponding configurations on the wheel in
20 cameo in the lower face of the upper die, as shown in Fig. 3.

In the lower die, A, (shown in Fig. 2,) is formed a central recess, which is provided with a pin or post, *a*. Around the outer periphery of this die is formed a flange, *d*, which extends some distance beyond the outward limit of the flow of the plastic material as it is pressed between the dies. A tapered ring, B, is held in place on the lower
30 die by the flange *d* on the die. The outer portion of this ring B is provided with ribs *g*, which strengthen it. The upper die, C, is adapted to fit snugly within the ring B, and has a recess which also accommodates the post
40 *a* in the center of the lower die, which forms the double purpose of a projection or post, which forms the central opening in the wheel to accommodate the axle, and of the guide to keep the upper die, C, from slipping or sliding
45 out of place or out of alignment with the inner face of the ring B.

Having now described my invention, what I desire to secure by Letters Patent is—

1. In apparatus for use in manufacturing car-wheels, the combination of the upper and lower dies with the tapered ring B, substantially as and for the purposes set forth.

2. The combination of the upper and lower dies with the central post, *a*, rigidly secured in one of the dies, and the tapered ring B, substantially as and for the purposes specified.

3. The combination of the upper and lower dies with the post *a* and the inclined ring B, the latter being provided with the strengthening-ribs *g g* on its outer periphery, substantially as described.

4. In apparatus for use in producing car-wheels, the lower die provided with a flange, *d*, around its outer lower portion, and a projection, *c*, above the flange around the outer periphery of the die, which flange and projection form a seat for a ring, B, in combination with said ring B and an upper die, substantially as and for the purposes specified.

5. The combination, substantially as heretofore set forth, of the lower die having an outwardly-projecting flange, *d*, extending beyond the limit of the inner periphery of the ring B, substantially as described, for supporting the ring B, in combination with the said ring and the upper die, C, which fits within the ring, substantially as described.

6. The combination of the lower die and the ring which holds the plastic metal within the die with the upper die, which is provided with radial ribs *in intaglio*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JAMES RIGBY.

Witnesses:

N. D. ADAMS,
CHAS. E. BARBER.