

G. R. ROOT.
CRUSHERS FOR COKE, &c.

No. 179,612.

Patented July 4, 1876.

Fig. 1

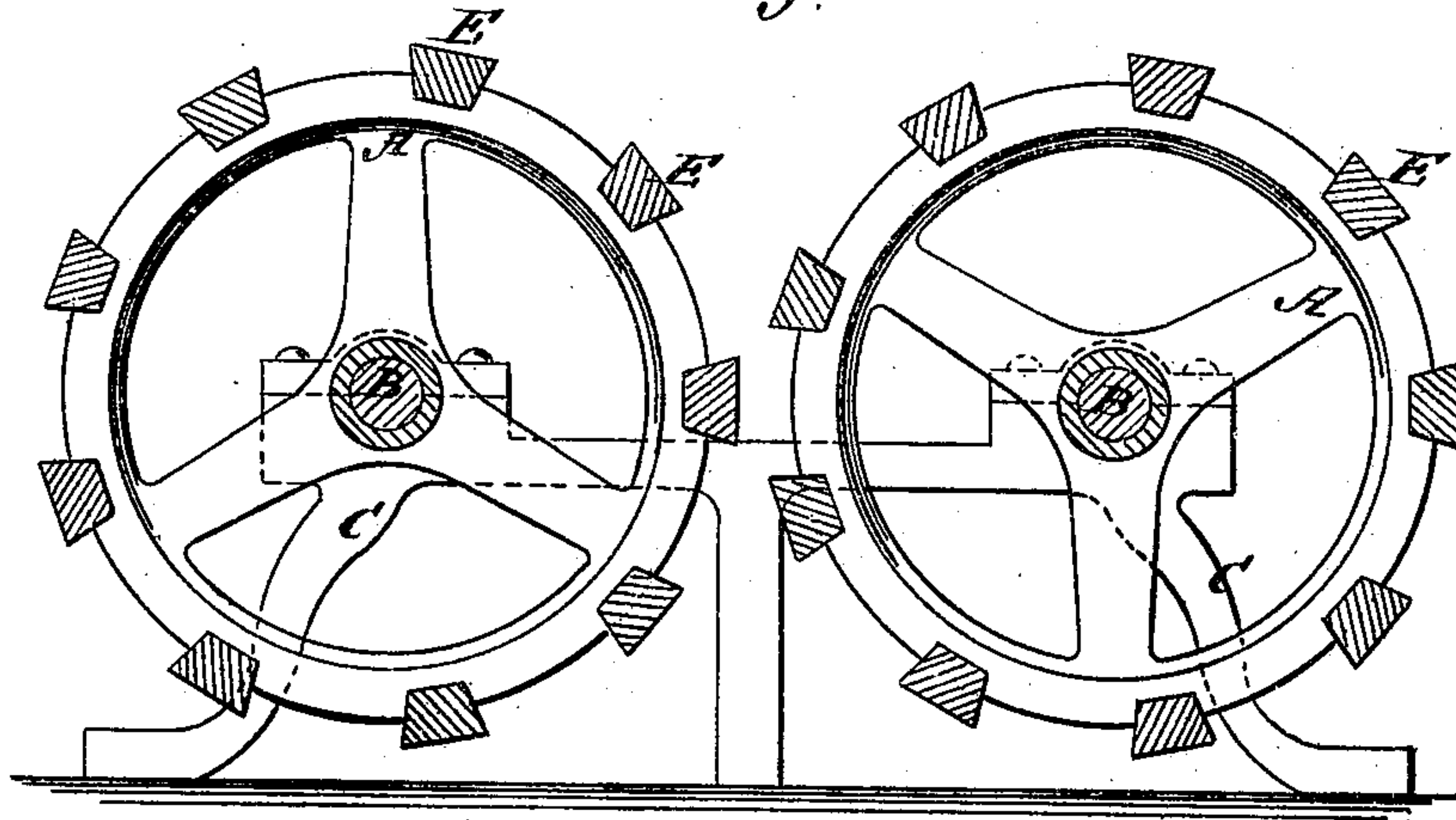
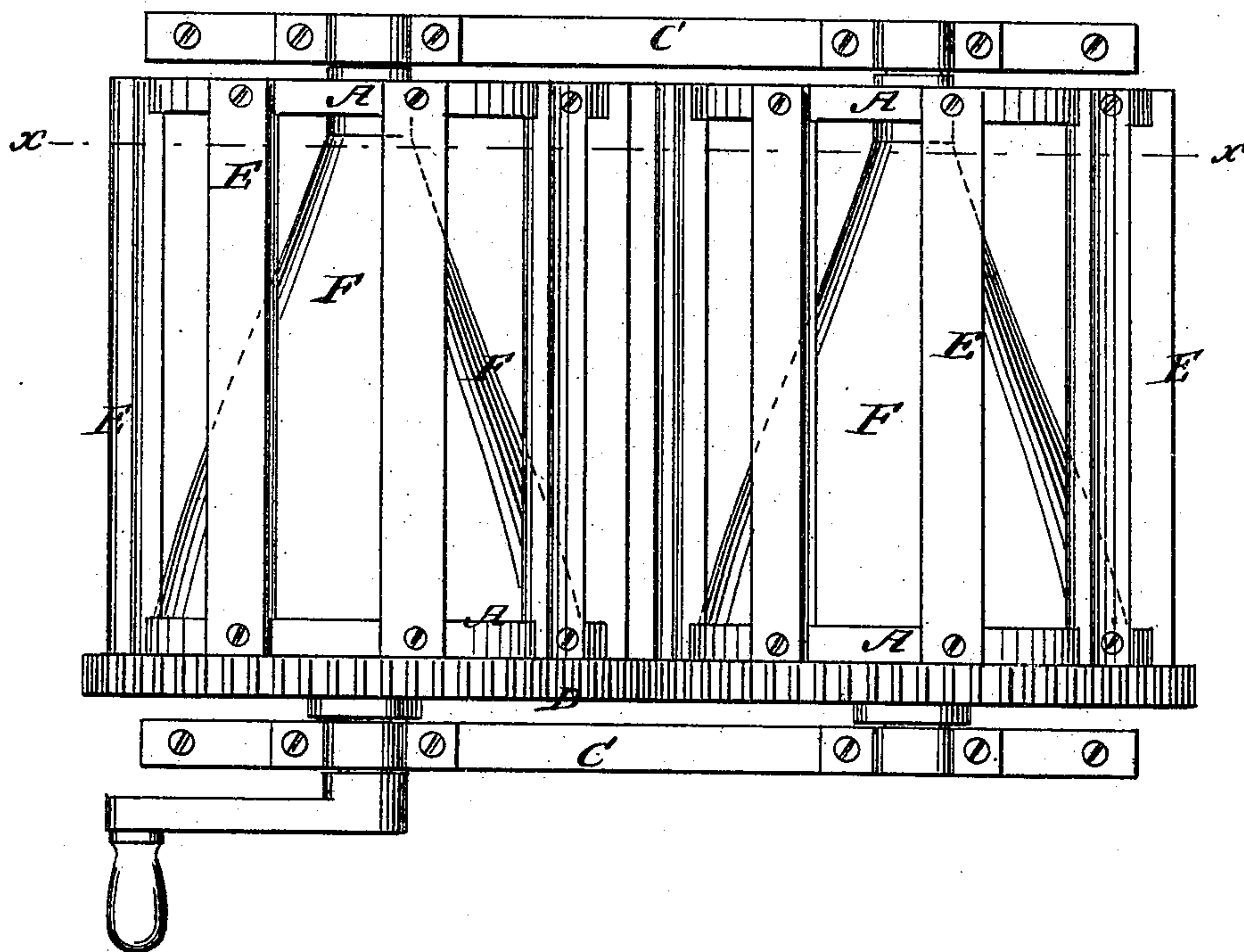


Fig. 2



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

GEORGE R. ROOT, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN CRUSHERS FOR COKE, &c.

Specification forming part of Letters Patent No. **179,612**, dated July 4, 1876; application filed April 10, 1876.

To all whom it may concern:

Be it known that I, GEORGE R. ROOT, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and Improved Crusher, of which the following is a specification:

My invention consists of a couple of hollow roller-drums, having strong bars parallel to the axis, attached at suitable intervals apart for the bars of one drum to mesh into the spaces of the other without quite touching, for crushing coke and other substances, to be fed into the crusher between the drums, which are geared together and revolved by power of any suitable kind. The bars are tapered from the outside inward, so that any pieces entering between the outer edges of them will be free to escape to the inside, and thus prevent clogging the bars. My invention also consists of cone-shaped cores within the drums, to cause the crushed coke to escape from one end.

Figure 1 is a longitudinal sectional elevation of my improved crusher, taken on line *xx* of Fig. 2. Fig. 2 is a plan view.

A represents revolving drum-heads, on parallel shafts B, mounted in strong housings C, and geared together by wheels D. E represents the crushing-bars, mounted on the rims or faces of the drums, parallel to the shafts,

and located at suitable distances for those of one drum to mesh in the spaces of the other drums, as clearly represented in the drawing. The faces of the drums are notched or boxed to receive the bars full size, to preserve their strength, and the bars are fastened by screws. The bars taper from outside to inside, so that the spaces between increase in width from the outer edge, to prevent the coke from clogging in them. F represents the conical cores of the drums, to cause the crushed coke to escape at one end, which is effected by the bars throwing the coke up onto the core each time it falls off, until the shape drives it out at the end of the drums.

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

1. The combination of two revolving drums, whose peripheries consist of intervalled bars, arranged alternately in the two drums, and made to taper from the outer to the inner side, as shown and described, for the purpose specified.

2. The combination, with a crushing-drum, A E, of a conical core, F, substantially as specified.

GEORGE RANDOLPH ROOT.

Witnesses:

EDWIN E. PRAY,
ENOS G. PRAY.