

(No Model.)

E. SHEPARD.

ROTARY SHEARS.

No. 326,163.

Patented Sept. 15, 1885.

Fig.1.

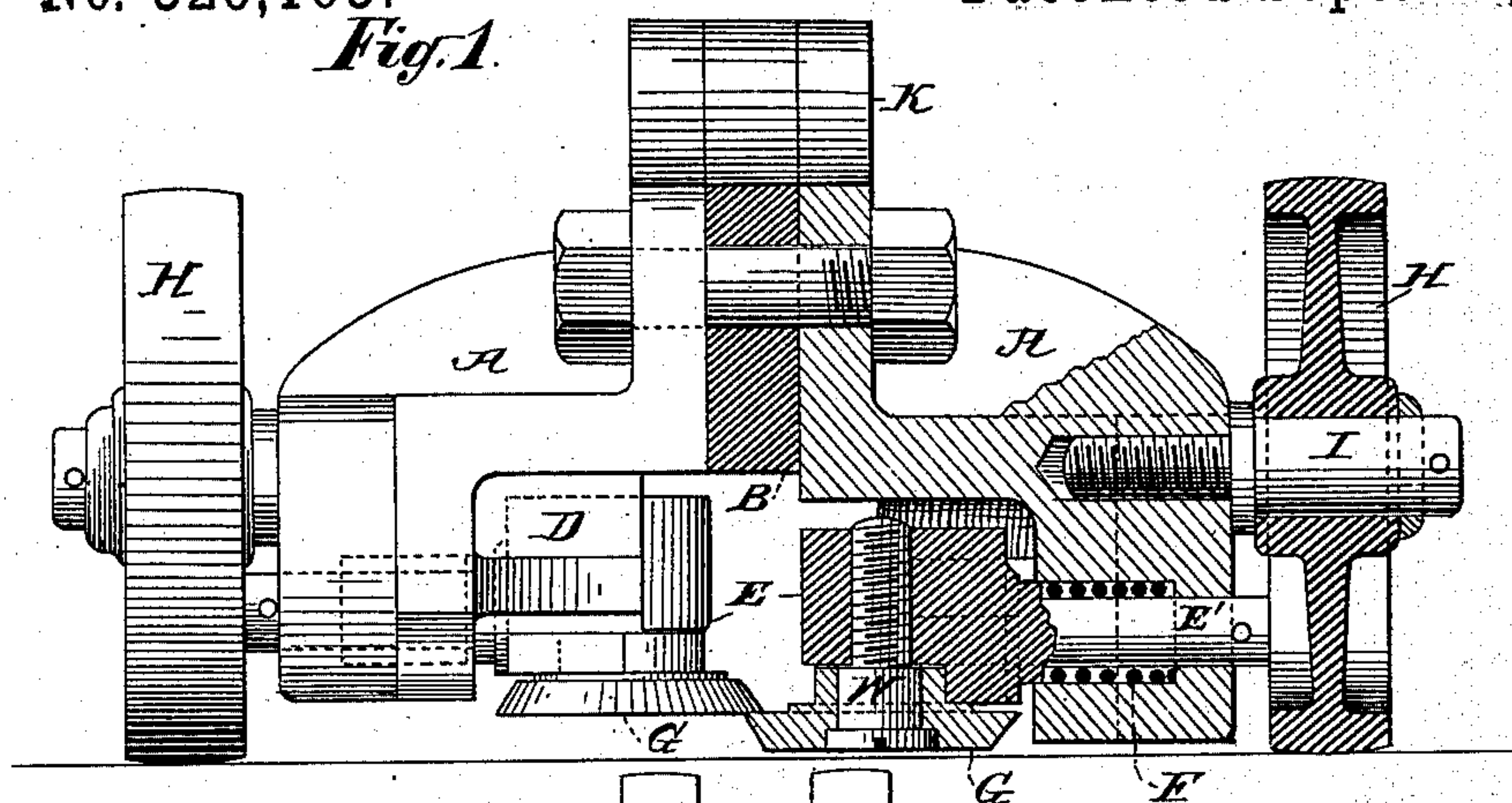


Fig. 2.

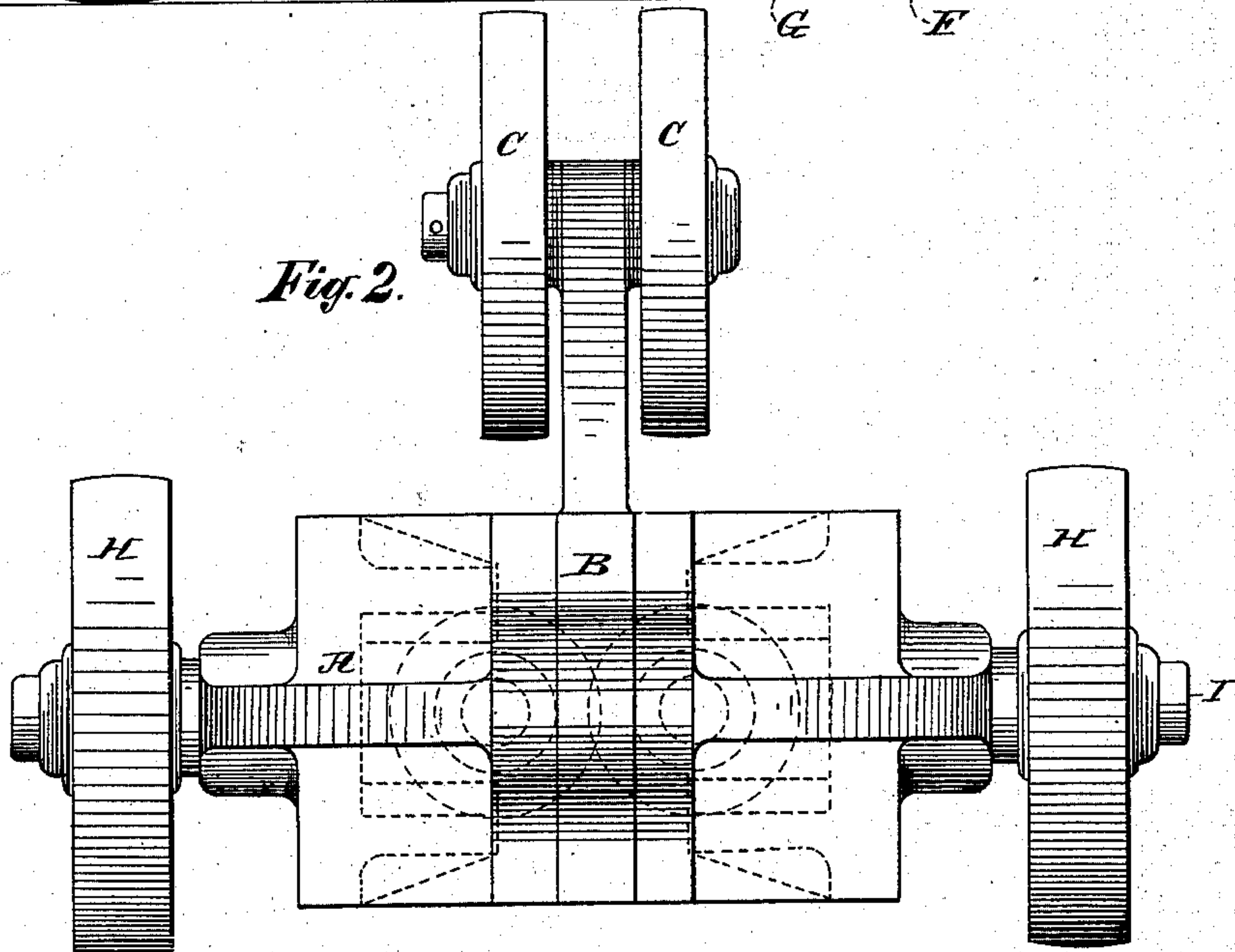
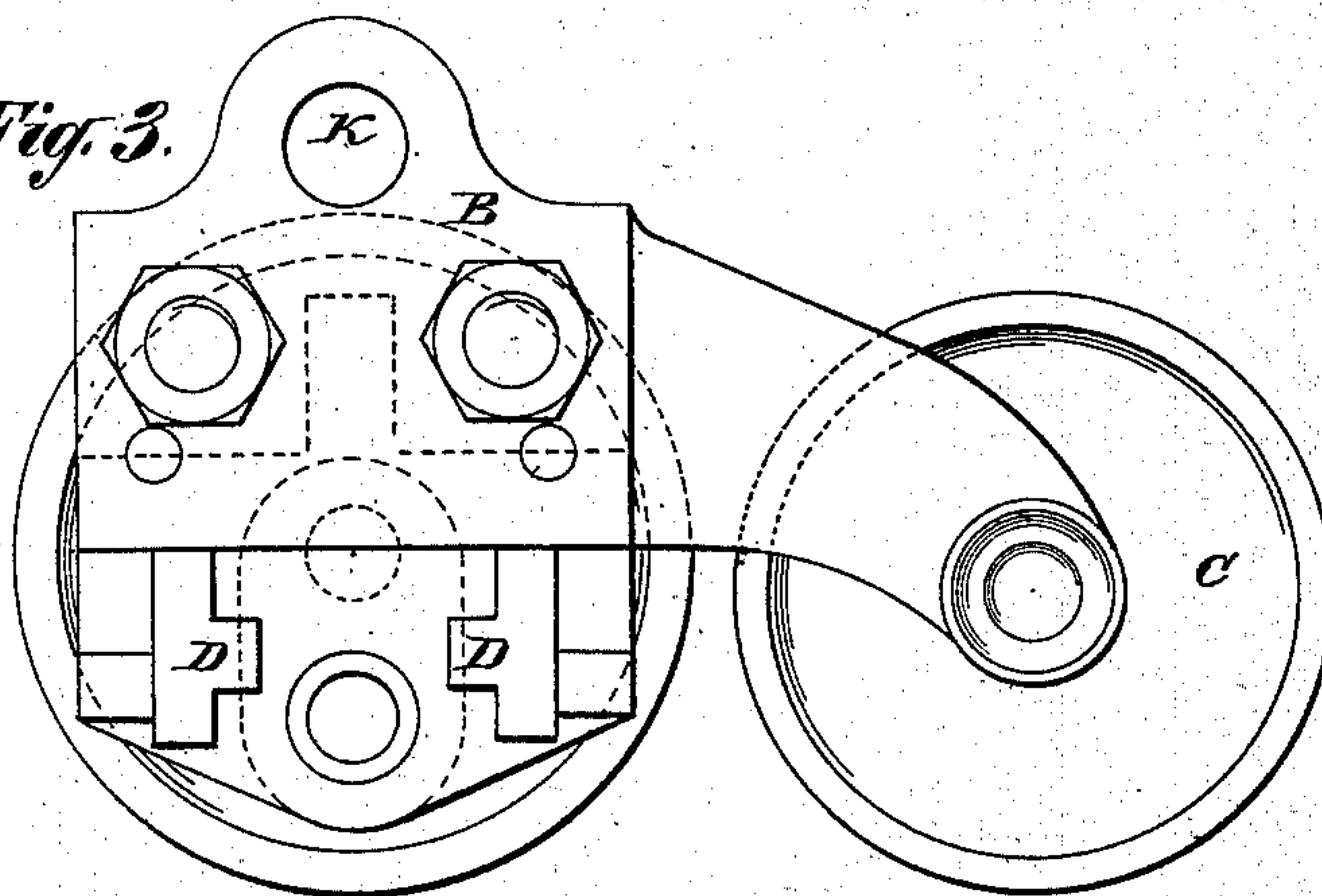


Fig. 3.



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Witnesses:
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UNITED STATES PATENT OFFICE.

EDWIN SHEPARD, OF STAUNTON, VIRGINIA.

ROTARY SHEARS.

SPECIFICATION forming part of Letters Patent No. 326,163, dated September 15, 1885.

Application filed December 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWIN SHEPARD, of Staunton, in the county of Augusta and State of Virginia, have invented certain new and useful Improvements in Sheet-Metal Cutters, of which the following is a full, clear, and exact description, and will enable those skilled in the art to which they appertain to make and use the same, reference being had to the accompanying drawings.

The invention relates to a sheet-metal cutter adapted to be used for removing the sheet-metal coverings of roofs or like surfaces, and particularly the sheet-metal coverings that are formed with what are known as "vertical seams"—that is, seams formed by bending the edges of the sheets vertically, and in that position locking or otherwise fastening them together, so as to leave such connected vertical edges standing above the sheets about an inch.

It is the object of the invention to provide a machine adapted to regularly and smoothly shear off such seams of a sheet-metal covering or roofing while it is in place on a building, thus separating the sheets from one another and leaving them easily removable, and obviating the necessity for recutting the sheets after they have been removed. This results in saving much time and labor over the usual method of cutting the seams with hatchets or some similar hand-tool, as also a saving in the sheets to be removed, for with my improved machine they are evenly cut with unbent edges; but when cut according to the old ways they are more or less battered and broken and have torn and ragged edges.

The invention consists of horizontally-revolving cutters arranged in a suitable head or carrier which is mounted upon wheels or rollers so arranged that the machine as a whole may be moved over a roof or like surface with its cutters shearing off a seam, and in a guide attached to such machine and arranged to engage the seam in advance of the cutters, and thereby direct the machine independent of the operator.

In the drawings, Figure 1 is an elevation view, partly in section, of a machine embodying my invention. Fig. 2 is a plan view of the same, and Fig. 3 is a side elevation with the carrier-bracket on that side removed.

In these views, A represents two brackets,

which are bolted together with a carrier, B, between them. This carrier projects forward, and at its outer end are pivoted the wheels C, arranged to run on either side of a seam and to act as guides. To the brackets A are cast the guides D, in which are supported the cutter-heads E, which heads have stems E', which fit in holes in the brackets, and are provided with springs F, arranged to yield to any undue strain exerted upon the cutters.

G indicates the cutters, which are of the usual circular form, being made of properly-tempered steel and attached to the heads E by pins W.

H represents the side or main wheels for supporting the machine, they being attached to the brackets by pins I.

The machine may be provided with a handle of any suitable length and form by which to move it along the roof or floor, and the handle may be attached to the machine by a bolt passing through the hole K, running through the brackets and carrier.

To use the machine, it is placed over a seam with its cutters in line therewith, and with the carrier reaching ahead with its guide-wheels engaging the seam. As the machine is forced along, its cutters come in contact with the seam and sever it from the plates close to the sheathing, and the projecting part of the carrier, which, with its wheels, acts as a guide, and which is held down by the weight of the machine and the force applied to move it along, keeps the machine on the seam and directs it along its intended course independent of the operator, who has but to put the machine in proper position to engage a seam and then drive it across the roof or floor.

I do not limit myself to the exact form of construction here shown, as obviously various other equivalent forms of machines may be used for carrying the cutters. So, too, other forms of guides for engaging the seam may be used; but the construction here shown is preferred and suffices to illustrate the invention.

What I claim as my invention is—

1. The combination, in a machine for cutting off the seams of sheet-metal roofs or other like surfaces, of revolving cutters mounted in a carrier and arranged to shear the seams, and wheels attached to the carrier, by which the machine can be moved along the seams, as and for the purpose set forth.

2. The combination, in a sheet-metal-cut-
ting machine designed to be moved over a roof
or other like sheet-metal surface to remove the
seams thereon, of revolving cutters arranged to
5 shear the seams, a carrier for supporting said
cutters, which is provided with wheels where-
by the machine can be rolled along the surface,
and a guide attached to the carrier in front of
the cutters, and arranged to engage the seam
10 and direct the machine, as and for the pur-
pose set forth.

3. In combination, in the herein-described
machine, the brackets A, the carrier B and
guide-wheels C, the wheels H, and the yield-
ing cutters G, as and for the purpose set forth. 15

In witness whereof I have hereunto signed
this specification in the presence of two sub-
scribing witnesses.

E. SHEPARD.

Witnesses:

C. BARGANIN,

W. J. BURKE.