

G. McKAY.

Leather-Splitting Machines.

No. 156,489.

Patented Nov. 3, 1874.

Fig. 1.

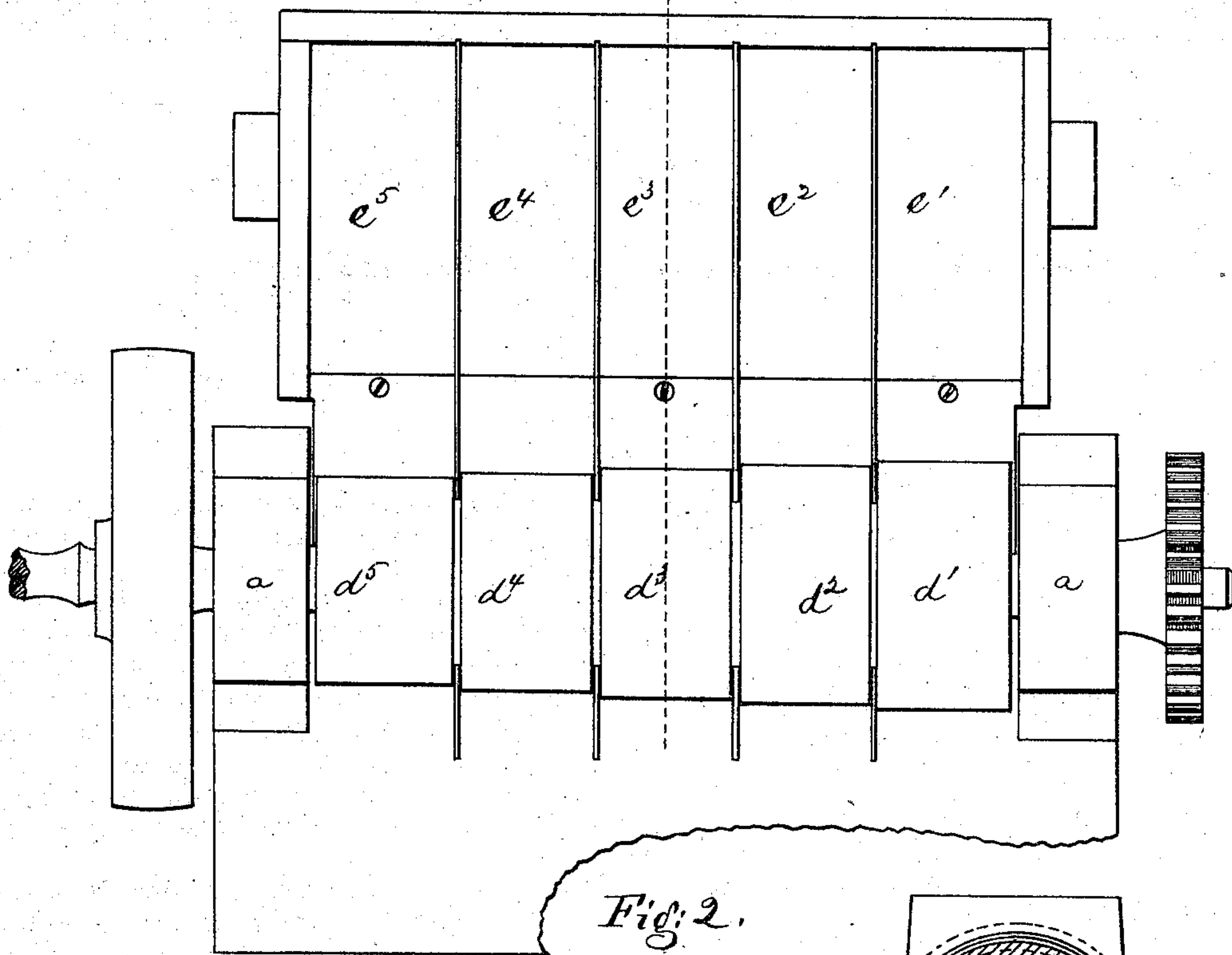
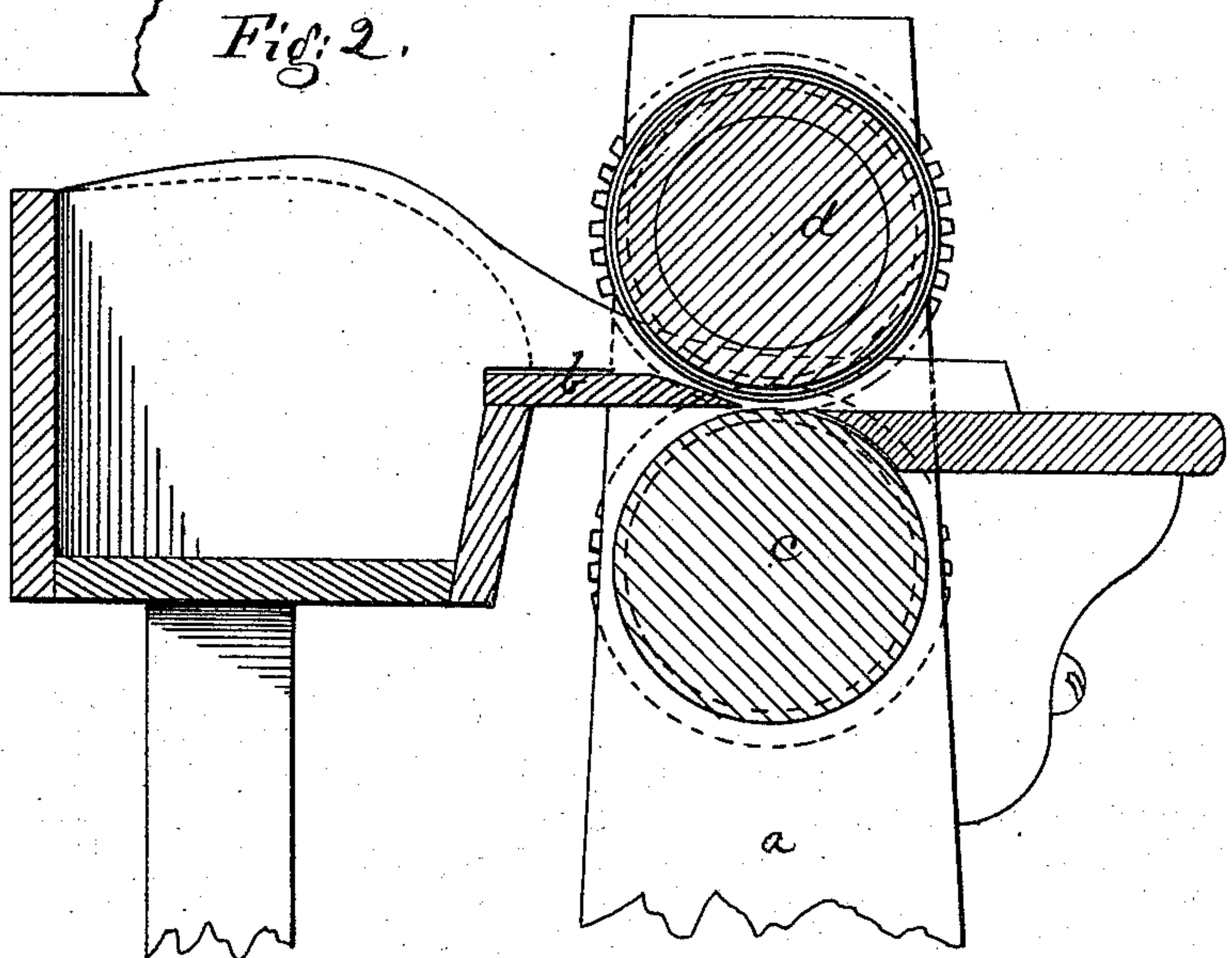


Fig. 2.



Witnesses.  
S. A. Porter,  
F. F. Stanley

Gordon McKay Inventor.

# UNITED STATES PATENT OFFICE.

GORDON MCKAY, OF CAMBRIDGE, MASSACHUSETTS.

## IMPROVEMENT IN LEATHER-SPLITTING MACHINES.

Specification forming part of Letters Patent No. **156,489**, dated November 3, 1874; application filed October 20, 1874.

*To all whom it may concern:*

Be it known that I, GORDON MCKAY, of Cambridge, Massachusetts, have invented certain Improvements in Machines for Splitting Leather; and I do hereby declare that the following, taken in connection with the drawing accompanying and forming a part of these specifications, is a description of my invention sufficient to enable those skilled in the art to practice it.

In the manufacture of shoes, when soles are made of two thicknesses of leather, it is important to have the thickness of the soles uniform through a case of shoes, and for this purpose it has heretofore been customary to split the taps or slip-soles and the outsoles to certain thicknesses, which, combined, will make the proper thickness for the double sole. This causes much waste of leather; or it is sometimes the practice to assort the soles and slip-soles by inspection, so that the effect is produced.

My invention consists of a splitting-machine having a top roller formed of a series of cylinders of different diameters increasing from the smallest end by a constant increment, and in partitions placed between the various steps in the roller, and boxes placed at the discharging end of the machine to receive the pieces after splitting.

In this way it will be seen that, if all the pieces of leather are run first through the widest opening, and those that are not touched by the knife are passed through the next opening, and so on, each box will, in the end, contain leather of a uniform thickness, and that the least waste possible will have been made in the splitting, and that if two soles which

are in the outside boxes are matched together, or two that are in the boxes next to the outside ones, or two from the center box, the thickness of the double soles will all be the same.

*a a* is the frame of the splitter; *b*, the knife; *c*, the bottom fluted roller; *d*, the graded top roller, having the steps *d*<sup>1</sup> *d*<sup>2</sup> *d*<sup>3</sup> *d*<sup>4</sup> *d*<sup>5</sup> diminishing in diameter by a constant quantity and the boxes *e*<sup>1</sup> *e*<sup>2</sup> *e*<sup>3</sup> *e*<sup>4</sup> *e*<sup>5</sup>, the corresponding receptacles, which, for convenience of handling, may be made so that they can be removed from the machine.

The top roller is grooved between the steps to admit the partition entering into the roller to prevent the leather in splitting from catching against the partitions. The rollers are geared together and driven in the usual way.

It will be seen that this machine is useful in other purposes besides the soles of shoes, such as the lifts for heels, where pieced heels are made, &c.

I claim—

1. In a splitting-machine, a graded top roller.
2. The combination of the graded top roller and the fluted roller.
3. The combination of the graded top roller, bottom roller, and the cutter.
4. The combination of the partitions with the graded top roller and splitting-knife, substantially as described.
5. The combination of the boxes and the graded splitting mechanism, substantially as described.

GORDON MCKAY.

Witnesses:

FRANK F. STANLEY,  
S. A. PORTER.