

No. 681,340.

Patented Aug. 27, 1901.

A. PARK & C. DURNING.
MANUFACTURE OF SHOVELS.

(Application filed Mar. 29, 1901.)

(No Model.)

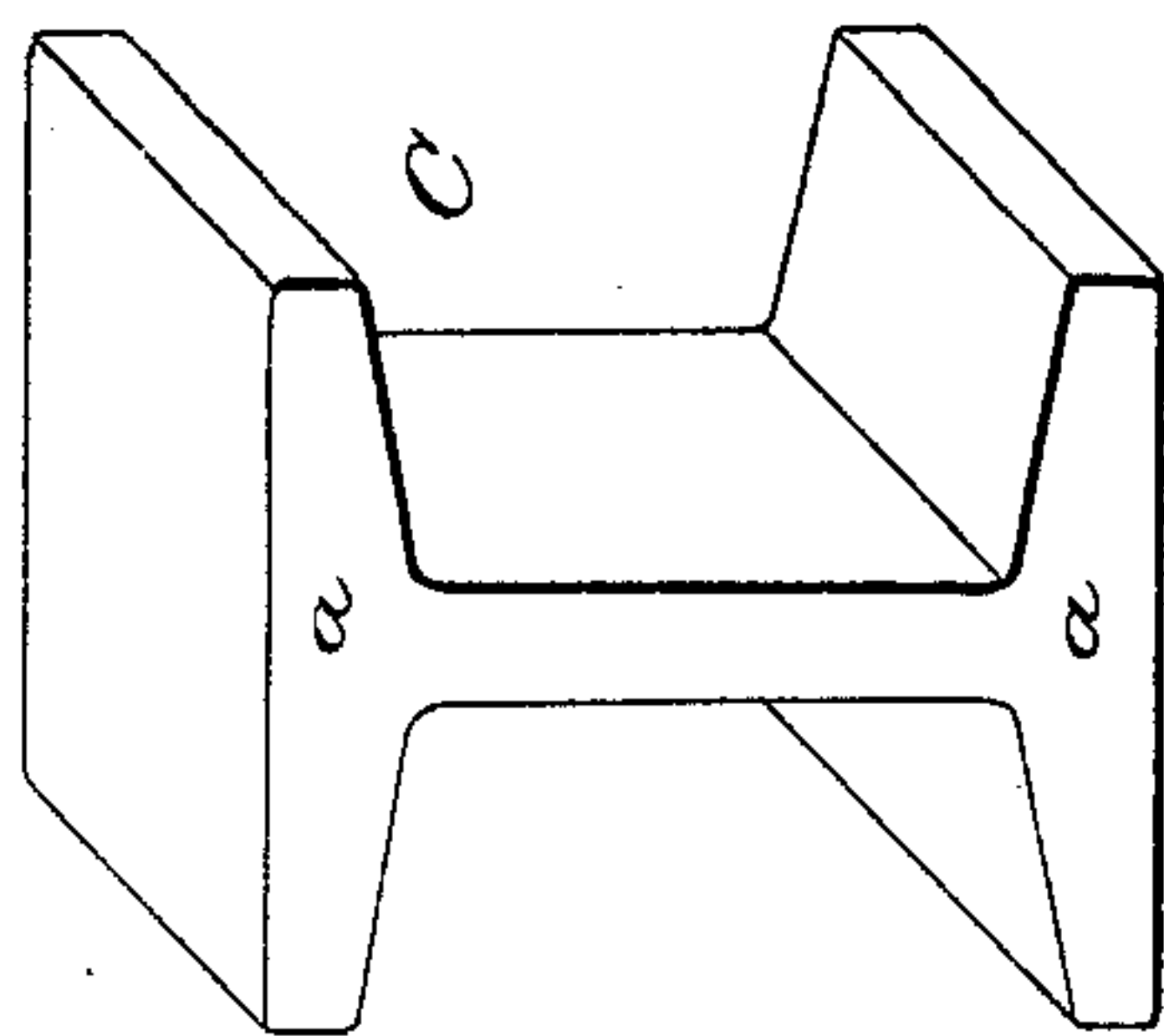


Fig. 3.

Fig. 8.

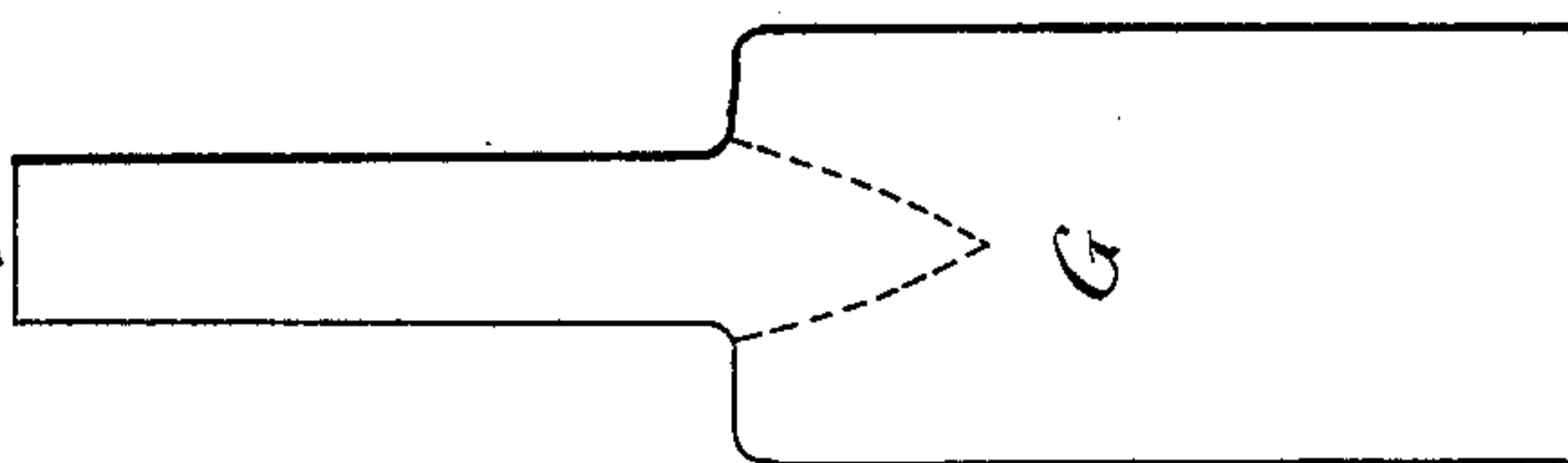


Fig. 7.

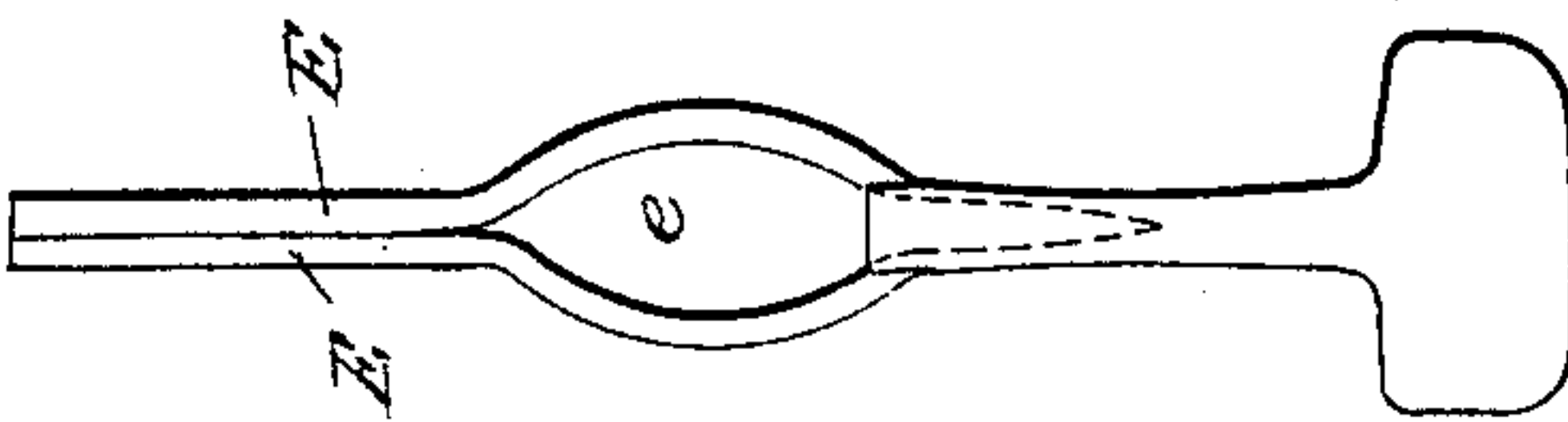
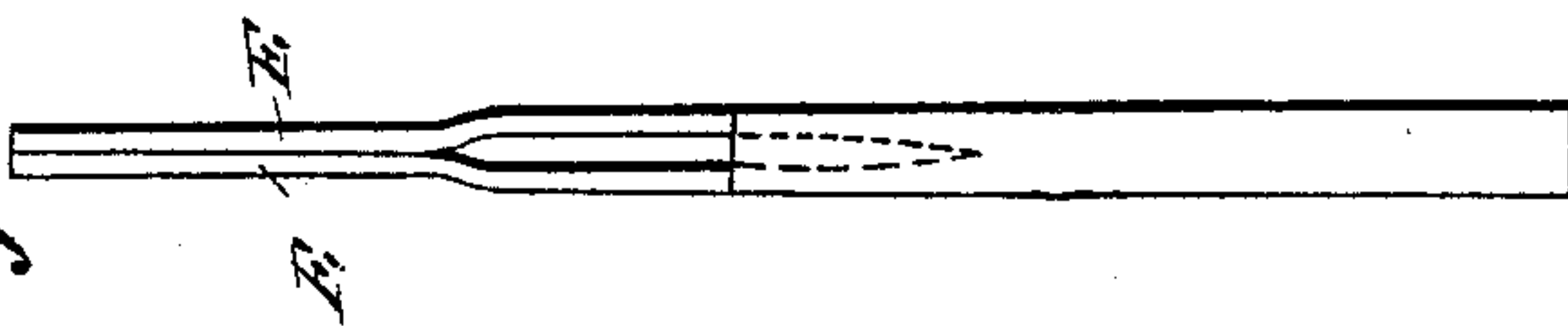


Fig. 6.

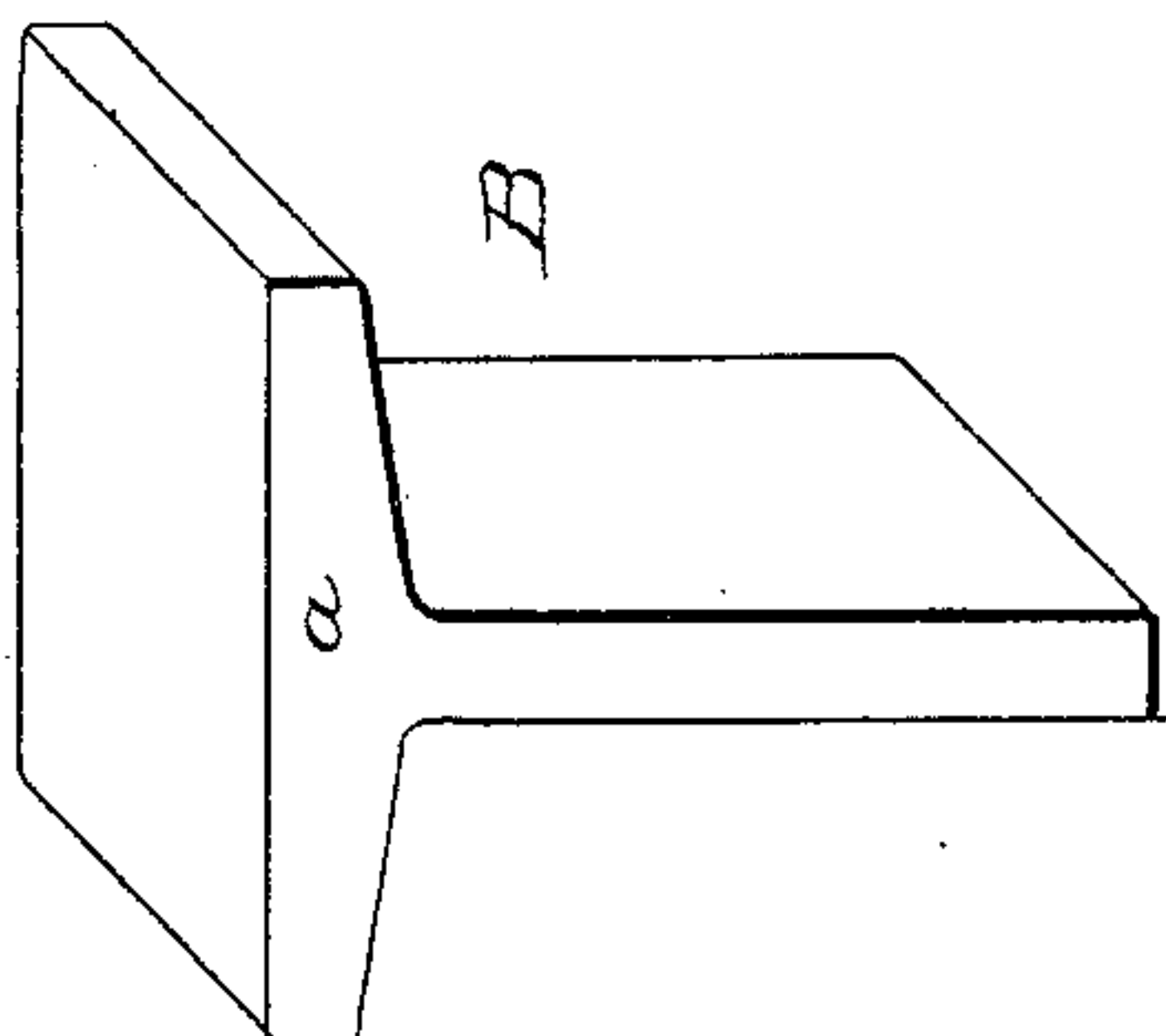


Fig. 2.

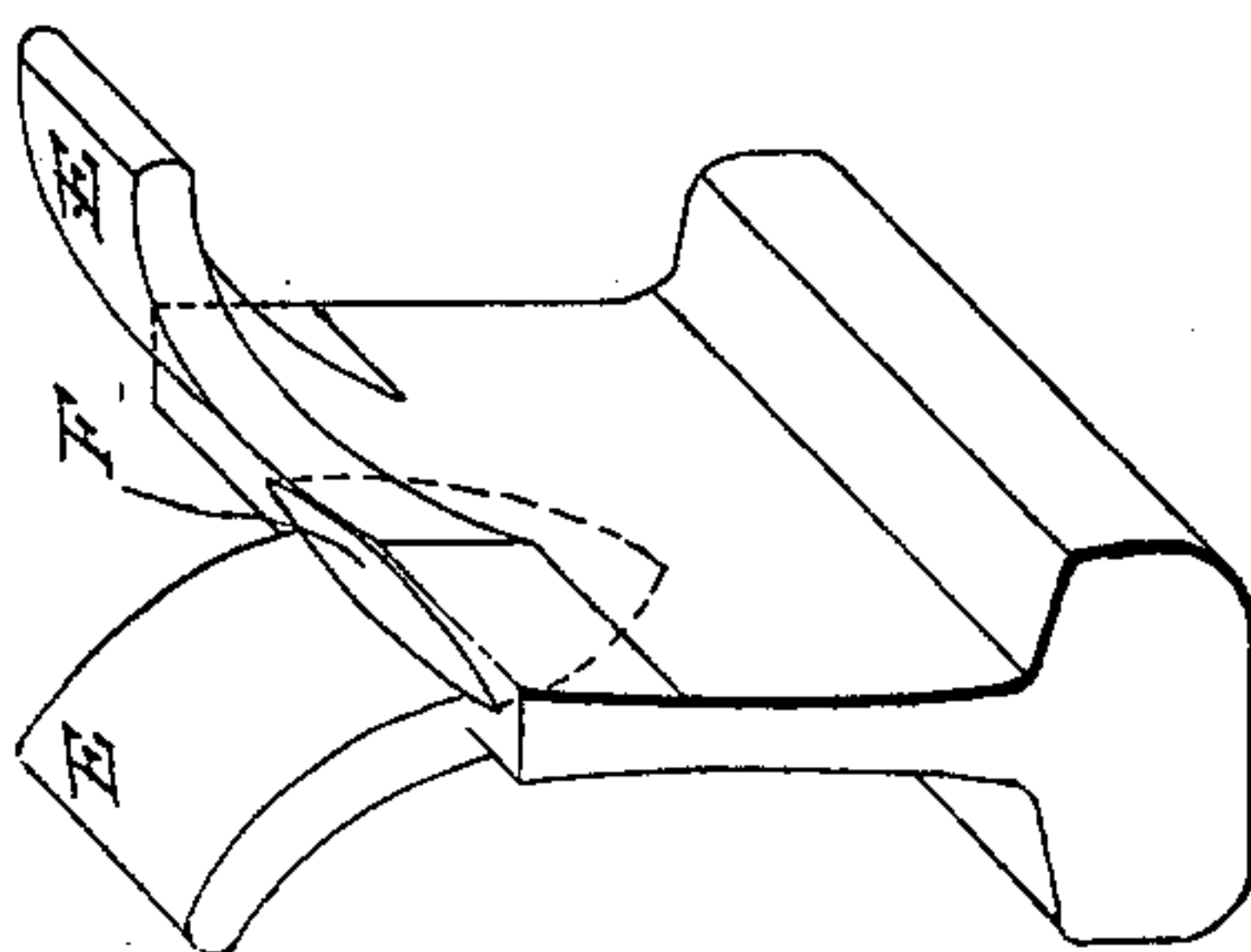


Fig. 5.

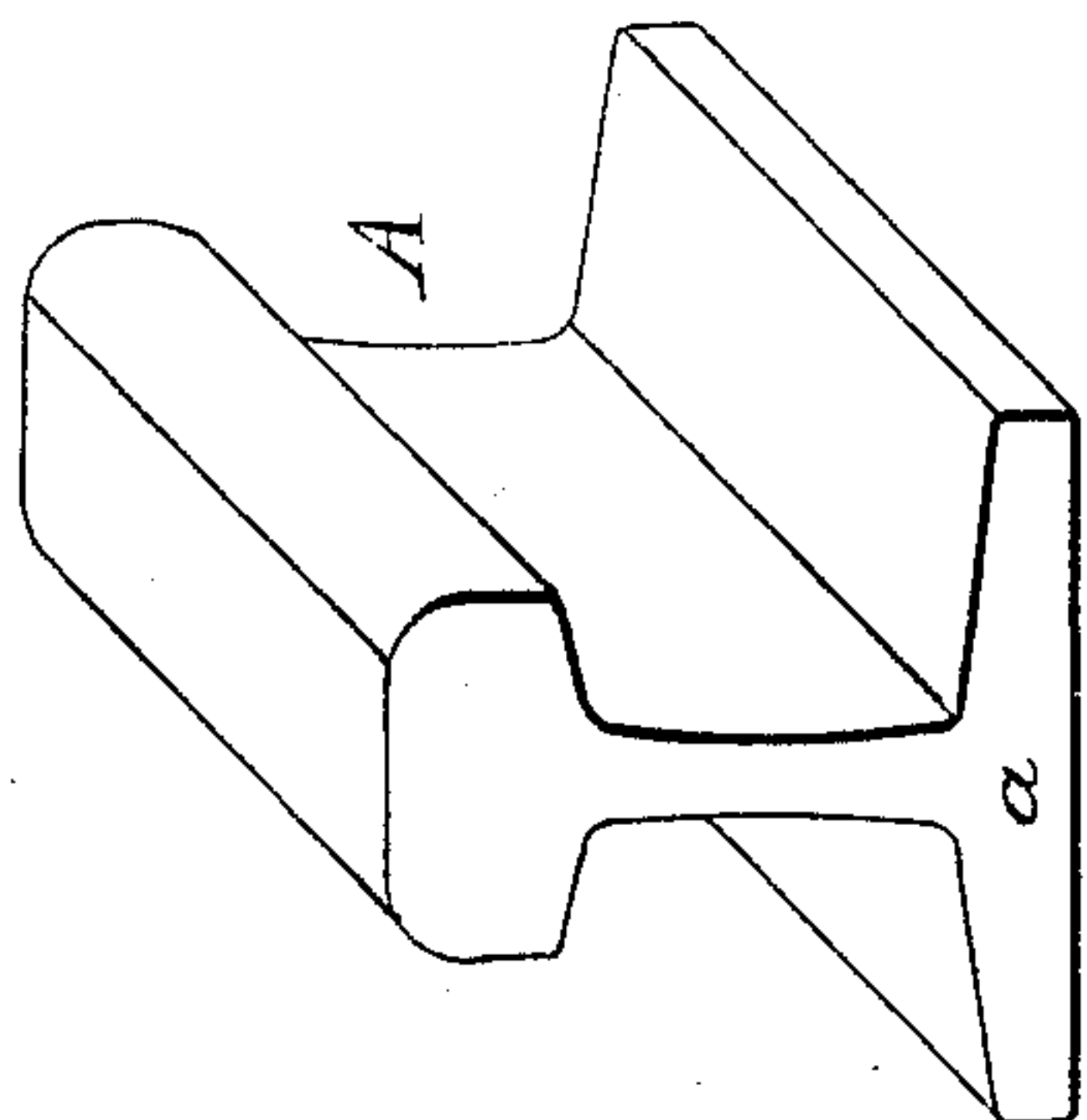


Fig. 1.

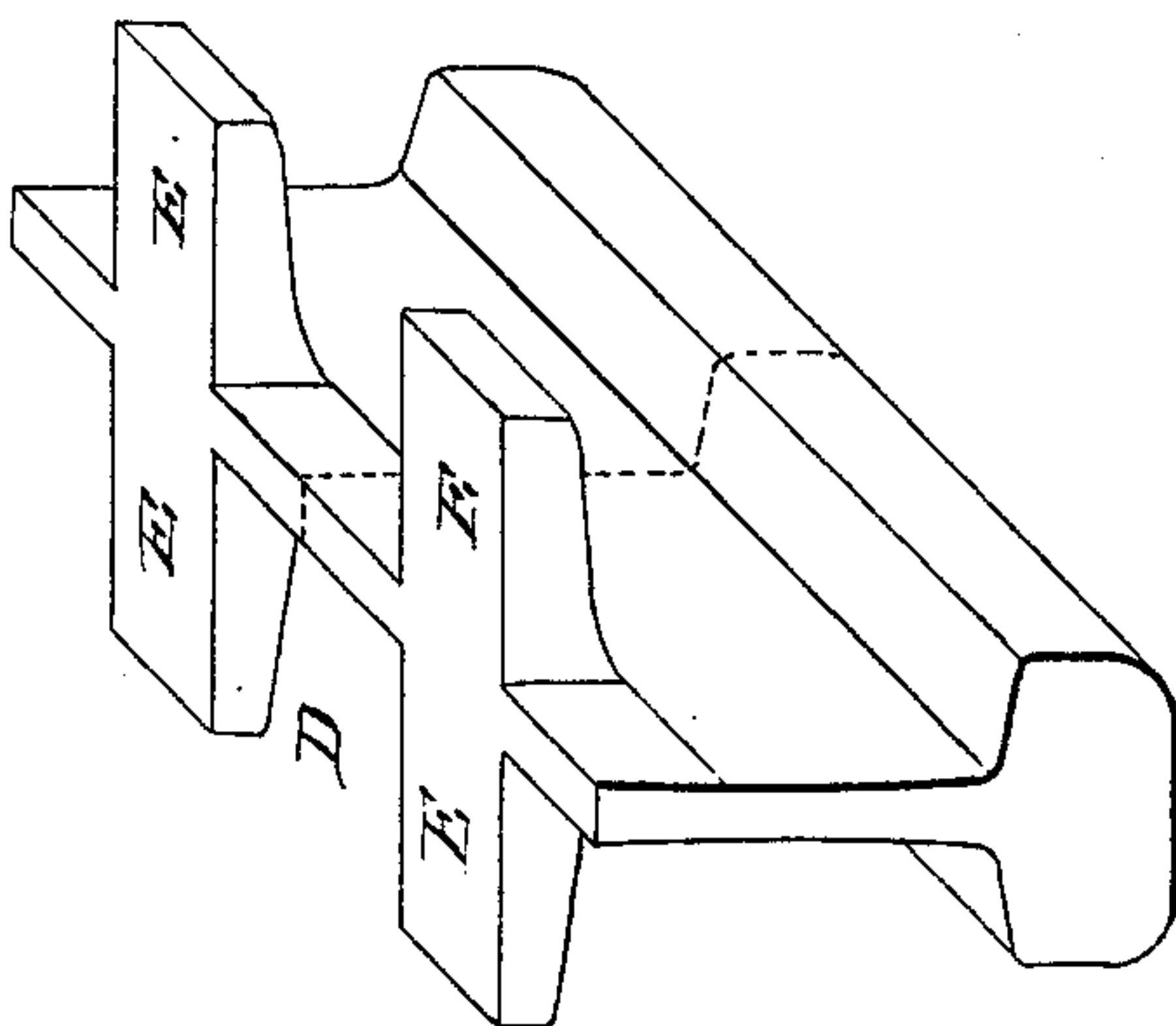


Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ALEXANDER PARK AND CHARLES DURNING, OF CLEVELAND, OHIO.

MANUFACTURE OF SHOVELS.

SPECIFICATION forming part of Letters Patent No. 681,340, dated August 27, 1901.

Application filed March 29, 1901. Serial No. 53,518. (No model.)

To all whom it may concern:

Be it known that we, ALEXANDER PARK and CHARLES DURNING, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in the Manufacture of Shovels; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a novel method of forming a shovel or the like from a rail or beam provided with an enlarged, flanged, or T head along one or both edges.

The invention also has for its object the construction of an improved shovel of one piece of metal, wherein all welding is dispensed with.

The novel details in the method and construction will be apparent from the detailed description hereinafter and the appended claims when taken in connection with the accompanying drawings, forming part hereof, wherein the various steps of the method and the complete article are fairly illustrated.

In the drawings like reference characters refer to corresponding parts in the several views.

Figures 1, 2, and 3 are detail sections of rails or beams susceptible of use in carrying out the methods herein. Figs. 4, 5, 6, and 7 indicate the various steps of the method, and Fig. 8 is an elevation of the complete article.

Referring more specifically to the drawings, a shovel is formed from rails or beams of any suitable type, as indicated at A, B, or C, the only requirement being that they be provided along one edge with enlarged, flanged, or T head *a*. The rail A being the preferable form, the other figures have been drawn to illustrate the steps of the method as applied to this particular one.

The shovels are conveniently made in series in the following manner: The rail is inverted, Fig. 4, with the flanged portion *a* uppermost. At suitably-disposed points along the flanges they are cut out, as at D, so as to

leave oppositely-disposed relatively narrow arms E. The upper edge of the rail at points running longitudinally thereof, but in alignment with and intermediate the arms E, is cut out or recessed, as at F, to form substantially U-shaped sockets. It will be obvious that the particular configuration of these sockets is immaterial, and they may be of any outline, with either curved or angular walls. The arms E are then bent upwardly, Fig. 5, and rolled or otherwise extended into the shape shown in Fig. 6, an open space *e* being left between their inner terminations. The whole rail is then rolled or otherwise extended in a cross direction into the form shown in Fig. 7, when the rail will be sawed or otherwise divided, as indicated by dotted lines in Fig. 4, when the article will be found to be complete, subject perhaps to a slight beveling or sharpening of the lower edge of the blade or web G.

In use the blade G constitutes the shovel proper, the arms E serving as an attaching means for a suitable handle, and the sockets receiving the extreme ends of the handles in an obvious manner.

From the above it will be seen that by a simple method rails or beams of a variety of forms may be converted into shovels of a strong, durable, and most efficient type.

It will be understood that slight variations may be made in the method of forming and construction of the article as herein specified without in the least departing from the spirit of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The method of forming shovels from flanged rails or beams, which consists in cutting away oppositely-disposed portions of the flanges, so as to leave relatively narrow arms at the sides of the rail and portions of the web projecting laterally of said arms, extending the arms in an upward direction, and extending or reducing the web of the rail, substantially as described.

2. The method of forming a series of shovels from flanged rails or beams which consists in first cutting away oppositely-disposed portions of the flanges of the rail so as to leave

a plurality of alined relatively narrow arms at the sides thereof, extending the arms in an upward direction into substantially parallel planes, extending or reducing the web of the rail, and finally sawing the rail in sections at points intermediate the respective series of flanges, substantially as herein shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

ALEXANDER PARK.
CHARLES DURNING.

Witnesses:

PATRICK W. BARRETT,
LOTTIE NEWBURN.