

(No Model.)

2 Sheets—Sheet 1.

J. R. ABBE.
BUFFING WHEEL.

No. 284,705.

Patented Sept. 11, 1883.

Fig. 1.

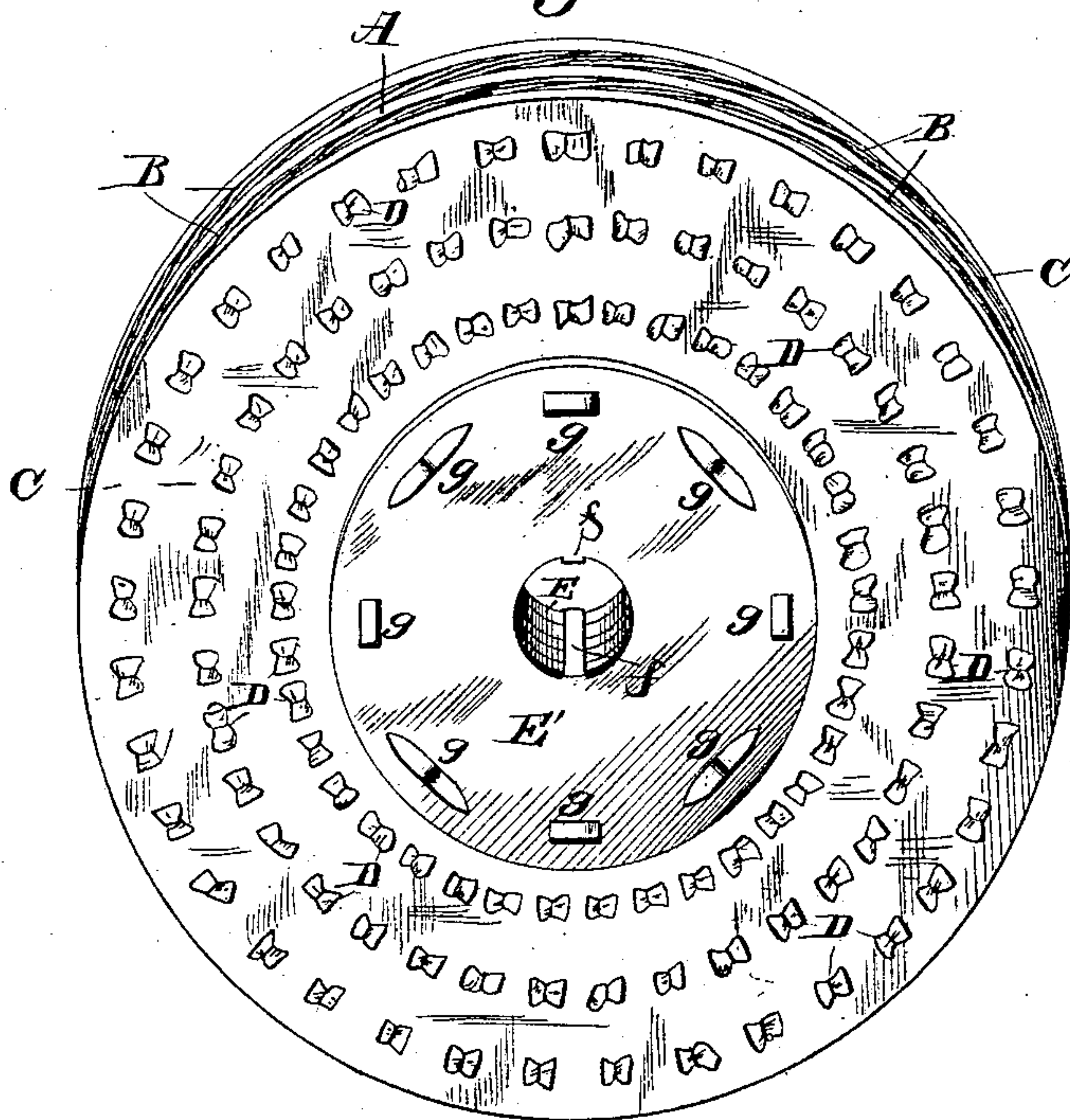
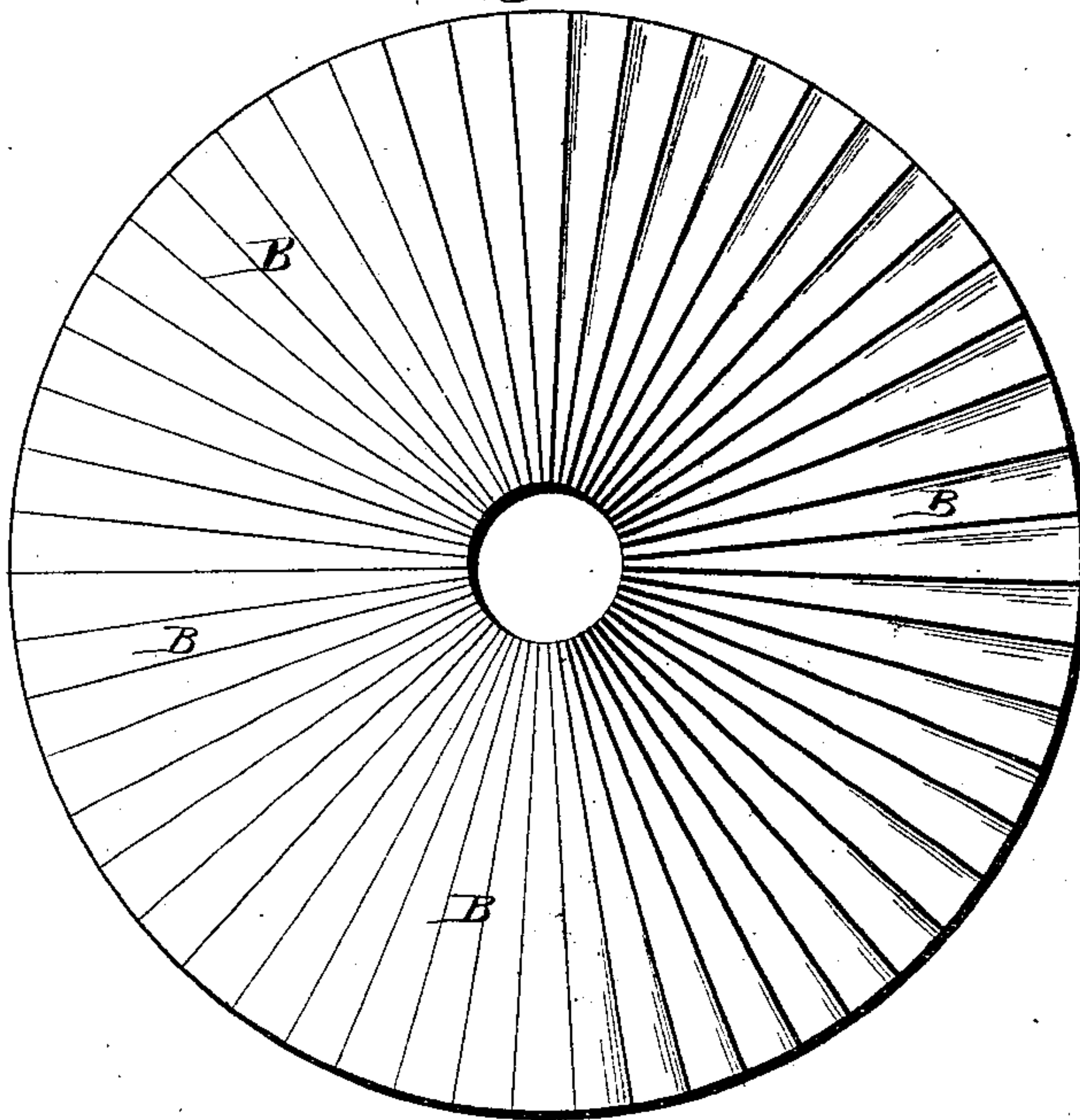


Fig. 2.



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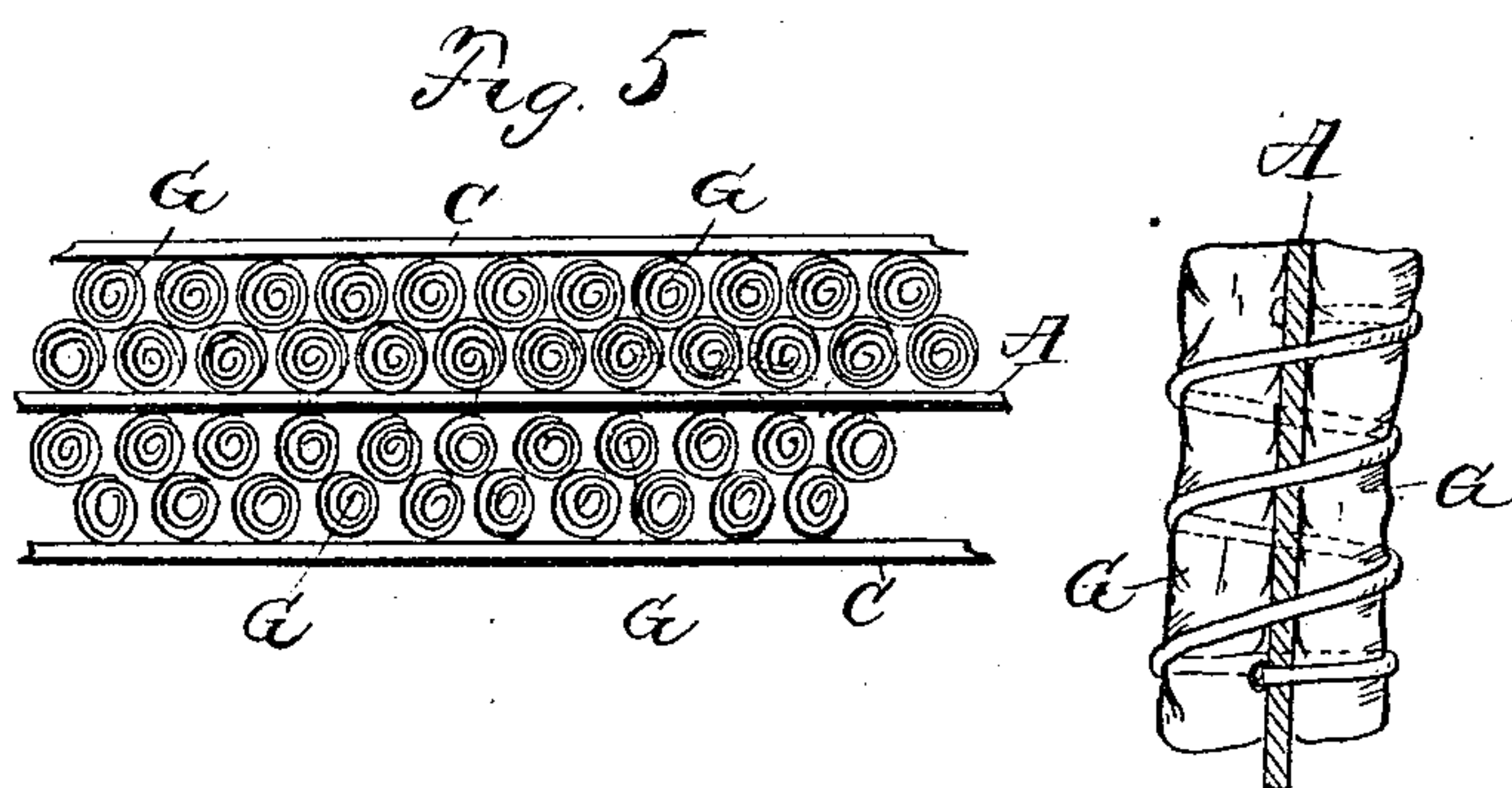
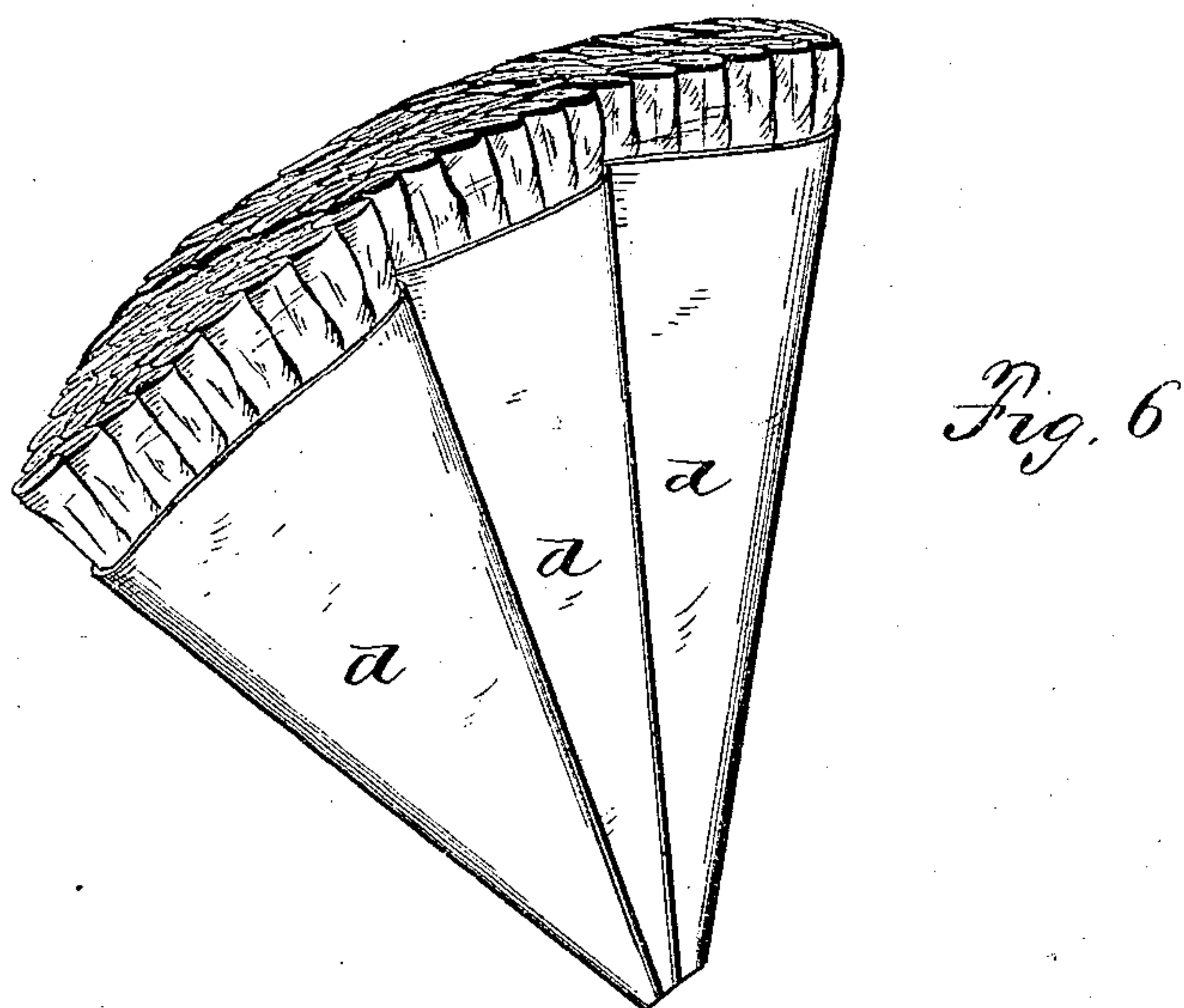
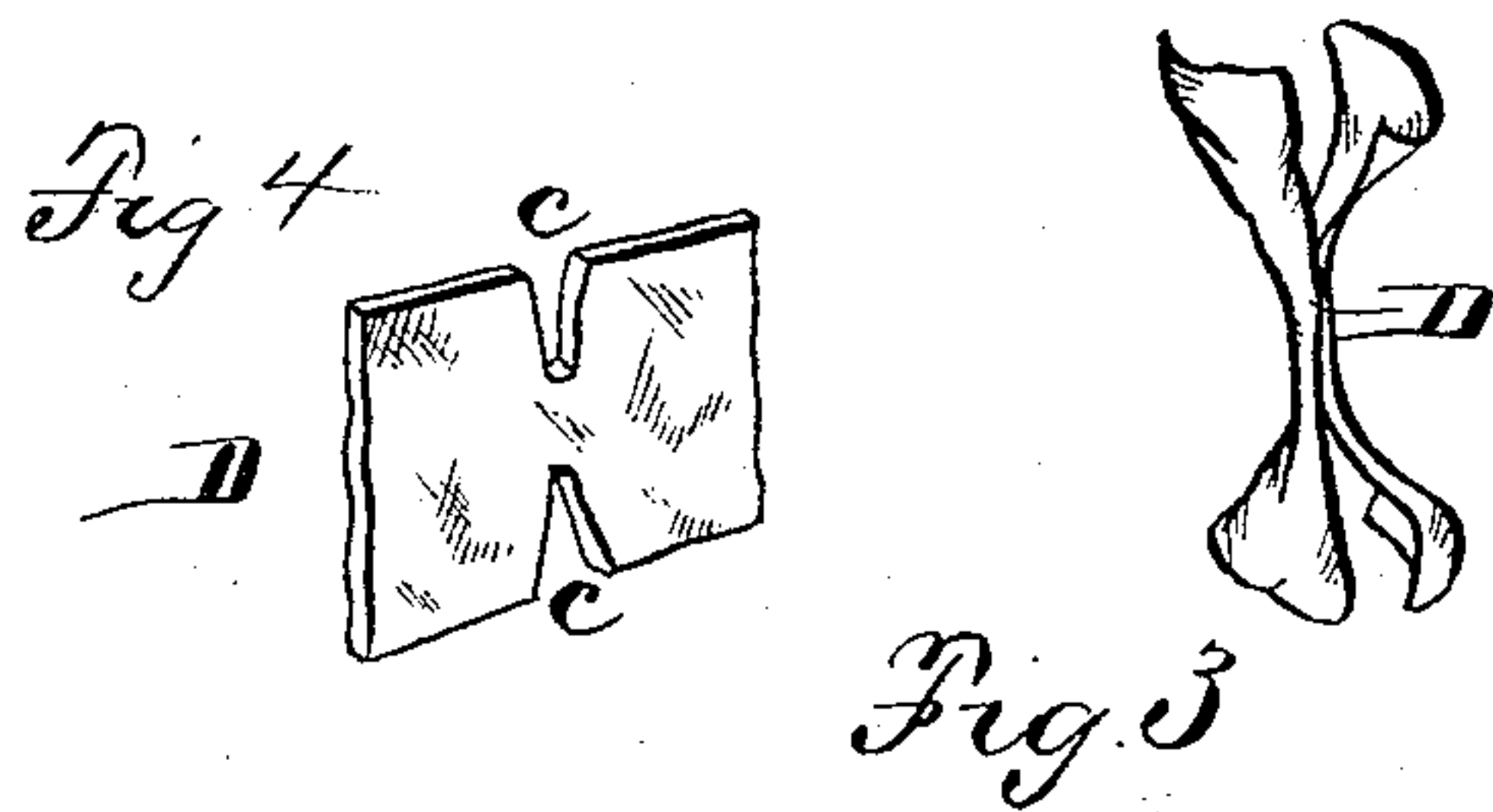
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INVENTOR
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UNITED STATES PATENT OFFICE.

JOHN R. ABBE, OF MANCHESTER, NEW HAMPSHIRE.

BUFFING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 284,705, dated September 11, 1883.

Application filed July 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. ABBE, of Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Buffing-Wheels; and I do hereby 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.

My invention relates to an improvement in buffing-wheels, the object of the same being to simplify and cheapen the present construction of buffing-wheels by utilizing waste-cloth, and securing it together in a manner to be hereinafter described.

In the accompanying drawings, Figure 1 is a view in perspective of a wheel embodying my invention. Fig. 2 is a plan view of the same with one of the faces removed. Figs. 3 and 4 show the forms of locking-strips, and Figs. 5 and 6 are modifications.

A represents a disk of any suitable pliable material to which the waste pieces of cloth are secured. These waste pieces B are preferably made triangular, or so shaped that when laid in shingle form on the disk A the inner or central portion of the wheel will not bulge out or be thicker than the periphery thereof. In constructing a wheel like that shown in Fig. 1, as many courses of the waste pieces or scraps B are laid on the opposite sides of the disk A as necessary, and then the cloth faces or disks C are placed in position, and the whole secured together by the cloth-fasteners D. Instead of employing the central disk A, the pieces B can be laid in a suitable form, and when the desired thickness has been obtained the faces C are secured thereto by the fasteners D. These fasteners D are simply a short piece of pliable fabric, as shown in Fig. 3, or a piece of fabric cut as shown in Fig. 4. In securing the parts together by the fastener shown in Fig. 3, I first pass a needle having a large eye therein through the cloth, and then thread the needle with the strips of material D, which perform the function of a fastener. The needle is then withdrawn from the wheel, and the opposite end of the piece D cut off with shears, leaving enough of the fabric, however, projecting from both sides to

form buttons. By passing the securing fabric through a restricted opening in the wheel, the central portion of the fastener is firmly compressed, while the portions thereof on each side of the wheel are left in their natural condition, and consequently act as buttons and prevent the fastening-strip from being accidentally displaced. The securing-strip shown in Fig. 4 is made of somewhat stiffer material than that shown in Fig. 3, and the opposite side edges thereof are cut away, as shown at c, for the purpose of decreasing the width of the strip at the point where it rests within the wheel. To apply these strips to a wheel, oblong slots are first formed therein, and the strips are passed in until the central or restricted portion thereof rests within the wheel, and the enlarged ends thereof rest outside of the wheel and prevent the accidental withdrawal of the strip. While these strips serve the purpose of fastening the gangs of cloth together, they also serve as buffing material as the wheel wears away, and also enable the wheel to give or slightly expand when pressure is applied to the edge thereof, thereby making it more pliable in use than the sewed wheels.

In Fig. 5 I have shown another arrangement for utilizing waste scraps, and it consists simply in securing wads or gangs of bunched cloth G to the opposite sides of the central disk, A, by means of strings passing through the central disk and around the wads. The wads on the same side of the disk A are placed close together, and the side disks or covering are also provided with similar wads on their inner faces only. These side disks are then placed against the wads on the central disk, with the wads on the side disks resting between the wads on the central disk, and the whole secured together by the flexible fasteners, as before described. Another arrangement is shown in Fig. 6, and it consists in first forming triangular pockets d of suitable flexible material, and filling the pockets with the waste cloth. These pockets are then placed in shingled form, and the facings secured thereto by the pliable fasteners before described. After the wheel has been formed, a central opening is formed for the passage of the wheel-arbor and the two collars E E' se-

cured thereto. These collars are adapted to embrace the wheel-arbor, and are restricted in diameter, so as to expose the greatest possible amount of buffing material to wear. The collar E is provided with an opening for the passage of the arbor, while the collar E' is provided with the inwardly-projecting prongs *f*, the ends of which latter are adapted to be passed through the central opening in the wheel and through the collar E, and be turned back against the outer face of the collar E. If the collars are made of brass, an eyelet can be struck up from the center of the collar E' and take the place of the prongs *f*. These collars are held by the pins *g*, which latter are removable, so as to enable the collars to be used repeatedly. This manner of applying the cloth and securing the parts together enables me to utilize all waste scraps, and consequently lessens the cost of manufacture of the wheels, while at the same time a wheel is produced that combines simplicity in construction with durability and efficiency in use.

It is evident that numerous small changes in the construction of the wheel might be resorted to without departing from the spirit of my invention, and hence I would have it understood that I do not confine myself to the exact construction shown and described, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. The combination, with gangs or wads of buffing material and suitable flexible facings or coverings, of the flexible fasteners for holding the parts together, substantially as set forth.

2. The combination, with gangs or wads of buffing material and the flexible coverings therefor, of the fastening-strips and metallic collars.

3. The combination, with gangs or wads of buffing material and flexible coverings therefor, of the fastening-strips, the metallic collars, the latter being constructed as shown, and the removable pins or fasteners for securing the collars to the wheel, substantially as set forth.

4. The combination, with the central disk, the triangular or equivalent shaped pieces of cloth laid in shingled form on the opposite faces of the central disk, and the wheel facings or coverings, of the flexible fastening-strips and the collars E E', substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN R. ABBE.

Witnesses:

DAVID H. DUSTIN,
HOLLIS H. LOVELAND.