

Franz & Pope,

Knitting Machine.

No. 102529.

Patented May 3, 1870

Fig. 1.

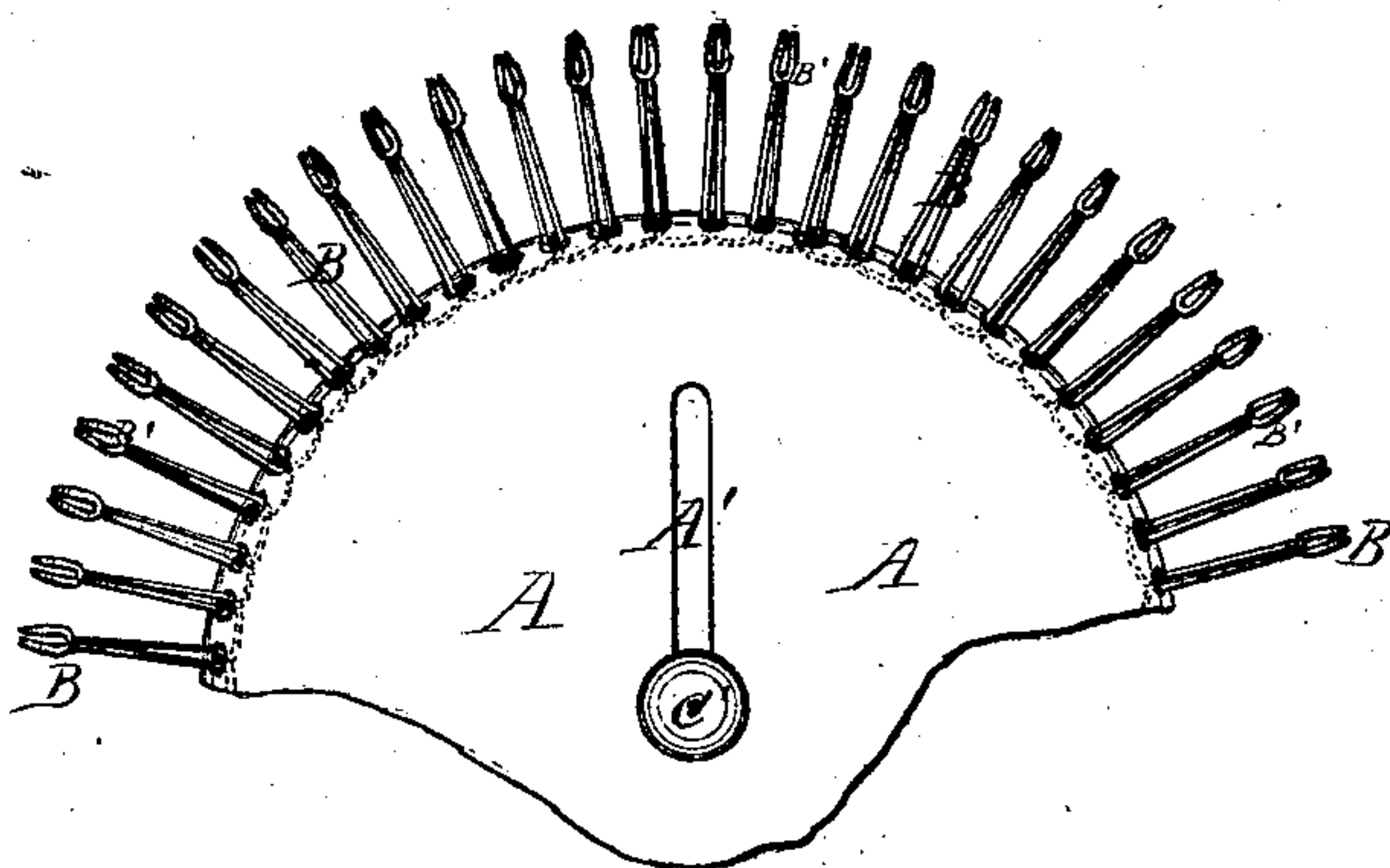


Fig. 2

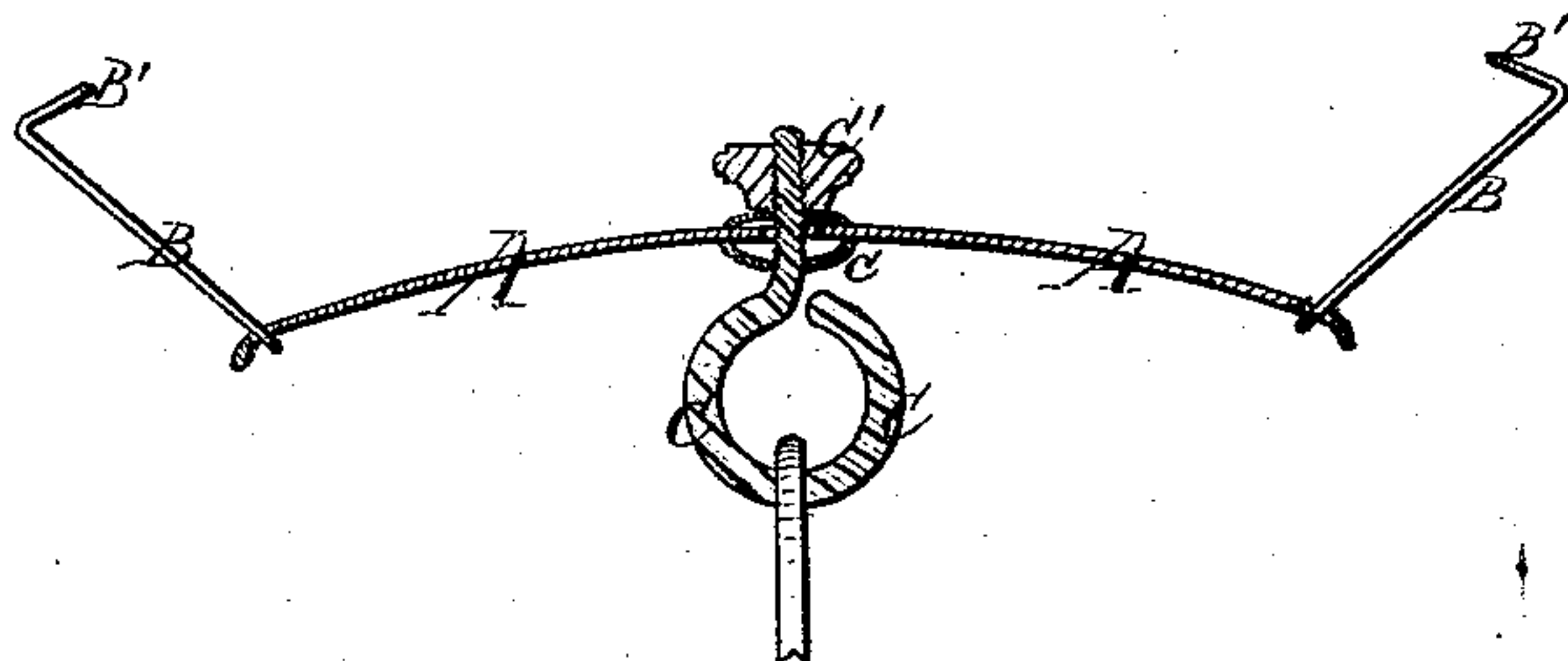
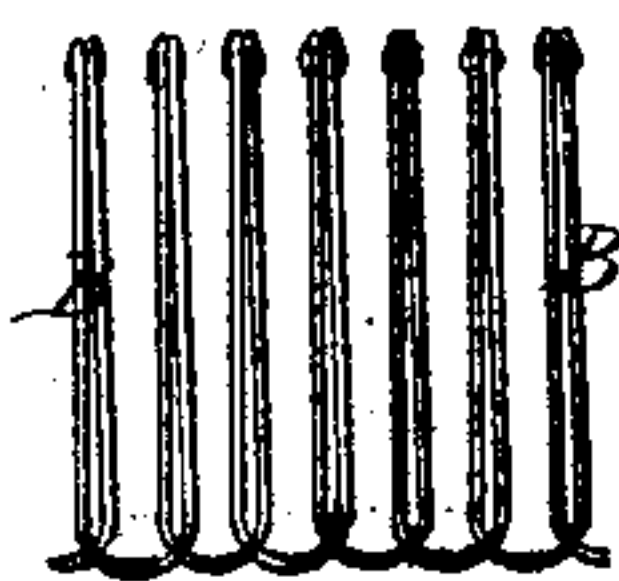


Fig. 3



Attest

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per Carson Brothers
their attys.*

UNITED STATES PATENT OFFICE.

WILLIAM FRANZ AND WILLIAM POPE, OF CRESTLINE, OHIO.

IMPROVEMENT IN SETTING-UP DEVICES FOR CIRCULAR-KNITTING MACHINES.

Specification forming part of Letters Patent No. 102,529, dated May 3, 1870.

To all whom it may concern:

Be it known that we, WILLIAM FRANZ and WILLIAM POPE, of Crestline, in the county of Crawford and State of Ohio, have invented a new Setting-up Device for Circular-Knitting Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a plan view of a portion of the device. Fig. 2 is a central vertical section. Fig. 3 shows the construction of the hooks.

Similar letters of reference denote like parts in each of the figures.

This invention relates to a setting-up device to be used in connection with circular-knitting machines; and it consists in a circular disk with any desired number of elastic hooks, constructed as hereinafter described, extending from its periphery at an angle, to which the continuous thread is to be attached, in the manner hereafter to be described; and, also, in the combination, with such disk and hooks, of an adjustable eyebolt, to which to attach weights to keep the work properly stretched.

To enable those skilled in the art to which our invention appertains to make and use the same, we will proceed to describe its construction and operation.

In the annexed drawings, A represents a circular disk of metal, which may have a concavo-convex form, as shown, and is to be made of such a diameter as to suit the aperture in the needle-cylinder of the particular rotary knitting-machine in connection with which it is to be used. A short annular flange is formed around it, as shown in Fig. 2, and where this flange joins the disk, a series of small holes is punched in it at short intervals to receive a continuous wire, bent as shown in Figs. 1 and 3, to form hooks B, which extend upward from the disk at an angle of about forty-five degrees to its plane. The barbs B' of the hooks point to the axis of the disk, and their number is determined by, and is equal to, the number of needles in the particular knitting-machine to which the device is applied. A radial slot, A', is cut in the disk, through which to pass the screw-threaded end of an eyebolt, C, which is held at any desired point in the slot by means of

thumb-nut C', the eyebolt being provided with a suitable collar or washer, c, to prevent its eye end from passing through the slot.

This device is used in the following manner: The disk is passed into the aperture of the needle-cylinder, and the thread, on setting up the work, is to be wound alternately around a needle, and then around a hook, B, until all the hooks are connected with the corresponding needles by the continuous thread. Suitable weights are then placed on a rod suspended from the eyebolt, which latter is in this instance, when circular work is knit, secured to the center of the disk. As the work progresses it is kept properly stretched by the weights, which will also cause the elastic hooks to bend uniformly inward and assume a position more nearly vertical.

When the work is finished and the weights are removed, the elasticity of the hooks will cause them to spread simultaneously outward and be easily detached from the fabric, which will have its first stitches so formed that they will not ravel. When a flat fabric is to be knit, and only a portion of the needles and hooks is employed, the weights should be more or less eccentrically attached, which is done by shifting the eyebolt in the radial slot of the disk.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A setting-up device for circular-knitting machines, consisting of a disk provided with an expansible series of elastic hooks, said series of hooks being composed of a single wire, substantially as set forth.

2. The setting-up device consisting of the disk A and hooks B, when the latter are constructed from a continuous wire, in the manner substantially as shown and set forth.

3. The combination of the slotted disk, eyebolt, thumb-nut, and elastic hooks, substantially as set forth.

In testimony whereof we hereunto subscribe our names, in the presence of two subscribing witnesses, this 1st day of February, 1870.

WM. FRANZ.
WM. POPE.

Witnesses:

JACOB STAHL,
S. O. EBERSOLE.