

(No Model.)

G. J. TORRANCE.
BANK CREEL.

No. 581,926.

Patented May 4, 1897.

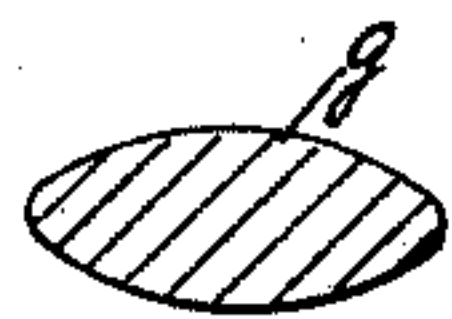
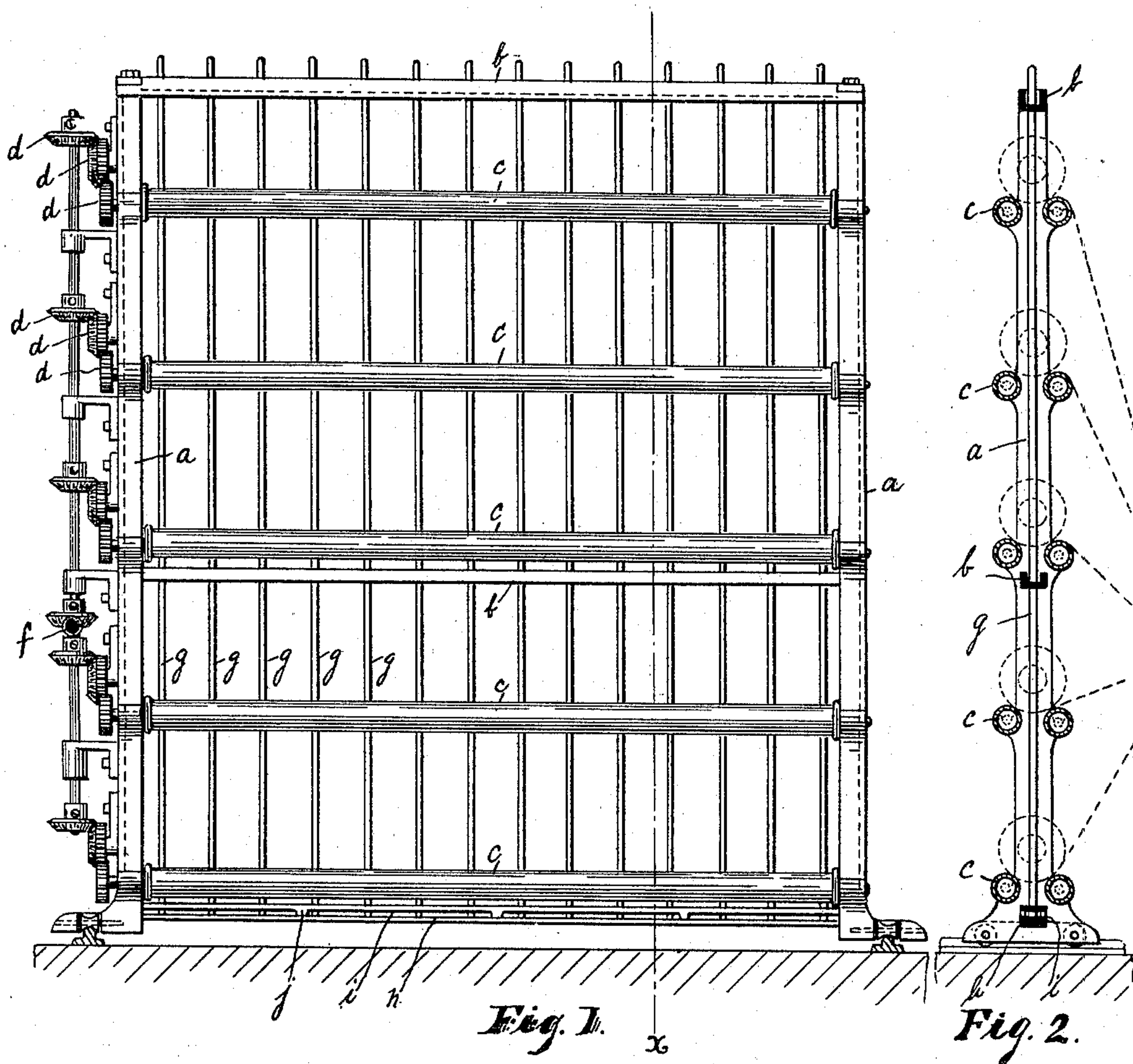


Fig. 3.

WITNESSES:

Robert Lollinger
C. S. Pitney.

INVENTOR:

George James Torrance,

BY Drake & Co. ATTY'S.

UNITED STATES PATENT OFFICE.

GEORGE J. TORRANCE, OF KEARNEY, NEW JERSEY.

BANK-CREEL.

SPECIFICATION forming part of Letters Patent No. 581,926, dated May 4, 1897.

Application filed July 15, 1896. Serial No. 599,227. (No model.) Patented in Canada February 11, 1895, No. 48,187.

To all whom it may concern:

Be it known that I, GEORGE JAMES TORRANCE, a citizen of the United States, residing at Kearney, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Bank-Creels; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention was patented in Canada February 11, 1895, No. 48,187.

The object of this invention is to prevent the obstruction of the spools in the bank-creels used in certain early stages in the formation of woolen thread as carried on in the card-rooms of woolen-mills. It has been a common occurrence in the employment of said bank-creels for the flying wool from the traveling sliver to accumulate upon the upright dividing-rods, which separate the spools, as they revolve upon the horizontal rollers of the creels. These dividing-rods have ordinarily and universally, so far as my experience goes, been round or circular in cross-section, and because of such shape the wool settling upon and encircling said rods, when acted upon by the rolling spools, has twisted and formed itself into rope-like bodies, which, grasping said dividing-rods and entering between the said dividing-rods and the spools, have clogged the latter, so that they were not free to revolve, but produced a drag upon the sliver, and thus the latter frequently broke under the tension, occasioning considerable delay in remedying the trouble and unevenness in the yarn should the break not be discovered. The spool, because of the twisting of the loose wool and its clogging effect, has also frequently been drawn from its seat upon and between the rollers, and then, falling upon or entering the adjacent machine, has broken the machine and thus occasioned considerable loss.

I have by careful examination and study discovered that by widening the dividing-rods and making at their outer edges a more or less angular form the tendency of the wool

settling at the points named to twist and form the rope-like body has been materially changed, and as a result the objections above noted have been entirely avoided, thus enabling the creel to regularly supply the carding-machine and produce a more perfect and uniform yarn.

Another feature of this invention consists in the arrangement of the said dividing-rods at their lower extremities. Heretofore the bottom perforated rod of the creel-frame has been so formed as to allow the dividing-rod passing through the perforations therein to drop to the floor, and thus when shifting the machine, which has to be done more or less frequently to enable the rollers, &c., to be moved for cleaning, repair, or other purposes, it has been necessary to remove all the dividing-rods from the machine before making the shift, thus involving considerable loss of time and occasioning considerable trouble. In the present case the bottom horizontal bar of the frame serves as a seat for the dividing-rods, holding them up from the floor, and I have employed what I have hereinafter called a "false" or "shell" rail, which is perforated to receive the dividing-rods and to hold the same from lateral movement.

Referring to the accompanying drawings, in which like letters indicate corresponding parts in each of the several views, Figure 1 is a front elevation of the bank-creel. Fig. 2 is a section of the same on line *x*; and Fig. 3 is an enlarged transverse section of one of the dividing-rods, showing the shape thereof, in which an important feature of my invention inheres.

In said drawings, *a a* are the side uprights of the frame. *b* are transverse bars for holding said side bars in proper relative position.

c c are horizontal rollers on which the spools are placed to give them rotary movement.

d are the usual gear-wheels connected with a common source of power *f* in any ordinary manner for giving rotary movement to said horizontal rollers, and *g g* are the vertical dividing-bars which separate the spools. Said rods extend up between the rollers and separate the spools of the several horizontal series from one another. Said vertical dividing-rods are made oval in the cross-section, as shown in Fig. 3, to prevent the wool from en-

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 circling the same and twisting to form the clogging rope or mass, as above described. *h* indicates the bottom rail, on which the said vertical dividing-rods are seated and held up
 5 from the floor. It may be an angle-iron to secure the desired stiffness.

i is the false or shell rail, held up from the bottom rail by feet or lugs *j*. Said shell-rail is perforated to receive the dividing-rods and
 10 hold the same from lateral movement.

Having thus described the invention, what I claim as new is—

1. The improved bank - creel, herein described, in which are combined with the creel-
 15 frame, the horizontal rollers arranged in pairs therein, for revolving the spools, means for simultaneously revolving said rollers, and vertical dividing-rods, held in said frame to separate the spools from one another, the said
 20 dividing-rods being oval in cross-section to

prevent the wool from encircling said dividing-rods and clogging the machine, substantially as and for the purposes set forth.

2. The improved bank - creel, herein described, in which are combined with the frame, 25 its horizontal rollers arranged in pairs and means for operating said rollers, of vertical bars for supporting the spools, a bottom rail supporting said dividing-rods, and a false or shell rail having perforations or apertures to 30 receive said dividing-rods, and prevent lateral displacement, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of May, 1896.

GEORGE J. TORRANCE.

Witnesses:

R. B. BLORMEKE,

C. B. PITNEY.