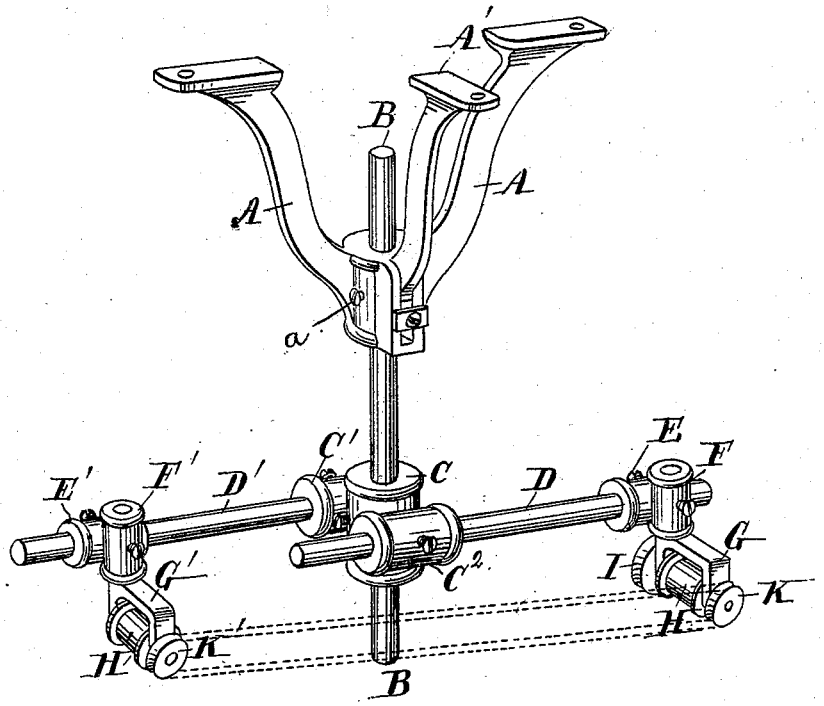
W. C. BRAMWELL.

Apparatus for Conveying Sliver from one Carding-Engine to another.

No. 218,921. Patented Aug. 26, 1879.



Witnesses:

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN APPARATUS FOR CONVEYING SLIVER FROM ONE CARDING-ENGINE TO ANOTHER.

Specification forming part of Letters Patent No. **218,921**, dated August 26, 1879; application filed November 21, 1878.

To all whom it may concern:

Be it known that I, WILLIAM CALVERT BRAMWELL, of Hyde Park, in the county of Norfolk and the State of Massachusetts, have invented a new and useful Improvement in Apparatus for Conveying Sliver from one Carding-Engine to another, which improvement is fully set forth in the following specification.

This invention relates to the carding of wool and similar material; and it consists in an apparatus for conveying the sliver from one carding-engine to another, and in certain arrangements and combinations of parts, as hereinafter more fully set forth.

The usual method has been to convey the sliver along an endless apron on or near the floor, thereby giving rise to much trouble and inconvenience. The objections incident to the usual mode are overcome in this invention by carrying the sliver overhead. In accordance therewith the sliver is passed over flanged rollers journaled in bearings in brackets, the rollers and supporting-brackets being suspended from a hanging bracket attached to the ceiling of the room by means of a vertical suspension-rod and horizontal sliding rods and socketed connecting-pieces, so as to be adjustable at any angle with the rest of the apparatus, to be turned in any direction, to be brought nearer together or separated, and to be raised or lowered as required. A hanging bracket having an adjustable arm is attached to the ceiling of the carding-room. A vertical rod is adjustably secured in an opening in the bracket, and about the lower part thereof a main barrel or sleeve is adjustably secured by a set-screw. Two cylindrical sockets are fixed on opposite sides of the main barrel, and serve as bearings for a pair of horizontal rods which are adapted to slide therein, suitable set-screws being provided for securing them in position. On the other ends of the horizontal rods flanged rollers journaled in brackets are adjustably secured by means of connections formed of a pair of sleeves or cylindrical sockets secured to each other at right angles, a cylindrical projection or rod on each of the brackets supporting the flanged rollers fitting in one of the sockets or sleeves, and the other socket fitting over one of the horizontal rods.

It will be readily seen that the brackets carrying the flanged rollers may be adjusted at any desired angle with the sockets or sleeves in which the projections thereon are secured. They may also be adjusted, together with the supporting sleeves or sockets, at any angle about the horizontal rods.

The distance between the rollers may be increased or diminished in accordance with the distance of one carding-machine from another by adjusting the positions of the socketed connections on the horizontal rods, or by adjusting the positions of the horizontal sliding rods in the sockets attached to the main barrel or sleeve. The rollers may also be raised or lowered by adjusting the main barrel or sleeve in position on the vertical suspension-rod to meet the different requirements of carding-machines or to suit the varying heights of ceilings; or the vertical suspension-rod may itself be adjusted in the opening in the hanging bracket in which it slides.

The rollers, with the horizontal rods, may also be turned in any direction by turning or rotating the main barrel or sleeve about the vertical suspension-rod, or by turning the suspension-rod in the opening in the hanging bracket.

It is intended that the flanged rollers be revolved at equal speed by means of grooved pulleys and band.

The drawing represents a perspective view of my invention.

A is the hanging bracket, adapted to be fixed to the ceiling of a room. It is provided with an adjustable arm, A′, which is intended to give greater steadiness to the bracket A, and by reason of its adjustability may be made to suit inequalities in the ceiling.

B is the vertical suspension-rod, sliding in the bore of the cylindrical portion of the bracket, and is secured in position by a set-screw, *a*, as shown.

C is the main barrel or sleeve, perforated lengthwise to allow the rod B to fit therein, and adjustably secured on said rod by means of a set-screw. On the opposite sides of the main barrel are fixed cylindrical sockets C^1 C^2,

which are perforated lengthwise, and in which the horizontal sliding rods D D′ are secured in any desired position by suitable set screws or equivalent devices. On the outer ends of these rods are secured by set-screws cylindrical sockets E E′. To these cylinders, at right angles thereto, other sockets or sleeves, F F′, are secured. These sleeves F F′ serve as sockets for pins or rods attached to the supporting brackets or frames G G′, in which the journals of the flanged rollers H H′ have their bearings. The pairs of cylindrical sockets E F and E′ F′, together with the main barrel or sleeve and sockets on the sides thereof, form what I have called "socketed connecting-pieces."

Motion is imparted to the large pulley I on the shaft of one of the rollers, and is conveyed to the other by a band on the smaller grooved pulleys K K′. The rapidity of motion imparted to these rollers is in accordance with the rate at which it is desired to feed the sliver which passes over the rollers H H′ to the machine.

It will be perceived that all the parts of the apparatus are adjustable, as before explained, and it is also intended to so construct portions that they may be interchangeable. For example, the horizontal sliding rods D and the pins attached to supporting-brackets G are made the same size, so that the sockets F F′ and sockets E E′ may, if desired, be placed on one or the other indifferently.

In operation the flanged rollers are adjusted to the proper height, and are secured at a suitable distance apart. They are then, together with the horizontal sliding rods and socketed connecting-pieces, turned about the vertical suspension-rod till they assume the proper direction relative to the machines. The rollers are adjusted so that their axes are substantially parallel and at right angles to the line connecting one with the other. The sliver is conducted over these rollers to the machine. The rollers are revolved by motion communicated to the large pulley on the shaft of one of the rollers, and from one roller to the other by the band on the smaller grooved pulleys.

It will be perceived that the sliver is delivered to the carding-machine or conveyed from one engine to another without interfering with the free motions of the operatives in passing from one side to the other or in tending the machines.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is as follows:

1. The herein-described apparatus for conveying the sliver for carding-engines, the same consisting of one or more rollers adjustably connected with the means for securing the same to a support overhead or on the ceiling of the room, substantially as described.

2. The herein-described apparatus for conveying the sliver of carding-engines overhead, the same consisting of a pair of rollers and means for adjustably supporting and adapting the same to be turned in any direction, and to be raised or lowered as required, substantially as set forth.

3. The combination, with a hanging bracket and a vertical suspension-rod, of horizontal sliding rods, supporting brackets and rollers, and connecting-pieces, as described, whereby said rollers are adapted to be adjusted in all directions, substantially as described.

4. The combination of a pair of rollers, provided with pulleys or similar devices for imparting motion thereto, with a support adjustable by means of vertical and horizontal rods sliding in socketed connecting-pieces, and a hanging bracket for securing the apparatus to the ceiling of a room, substantially as set forth.

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

WM. CALVERT BRAMWELL.

Witnesses:

JOHN ALLYN,

WM. E. MARSTON.