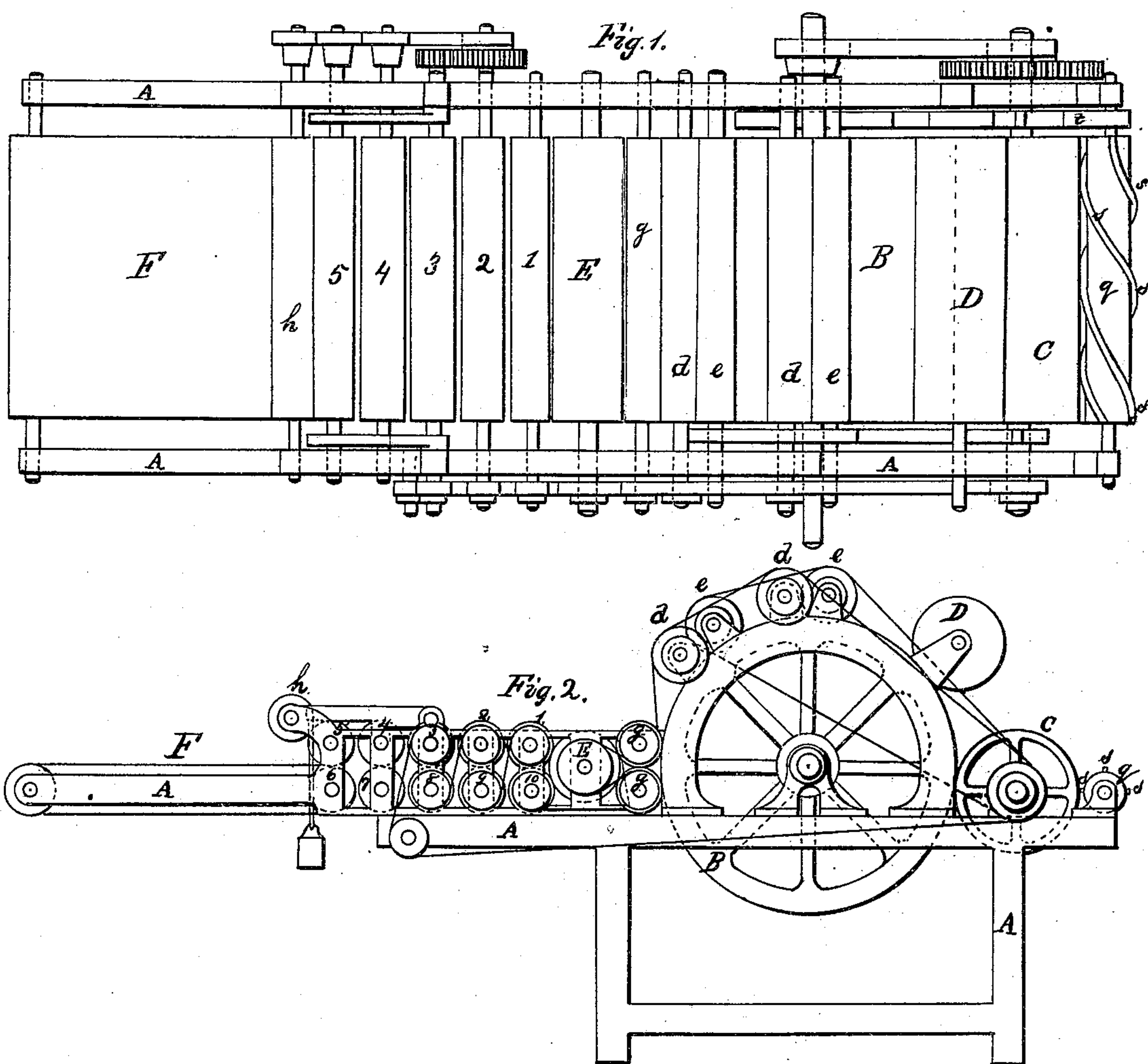


Dennyster & Holcroft. *Carding Mach.*

N^o 96,556.

Patented Nov. 9, 1869.



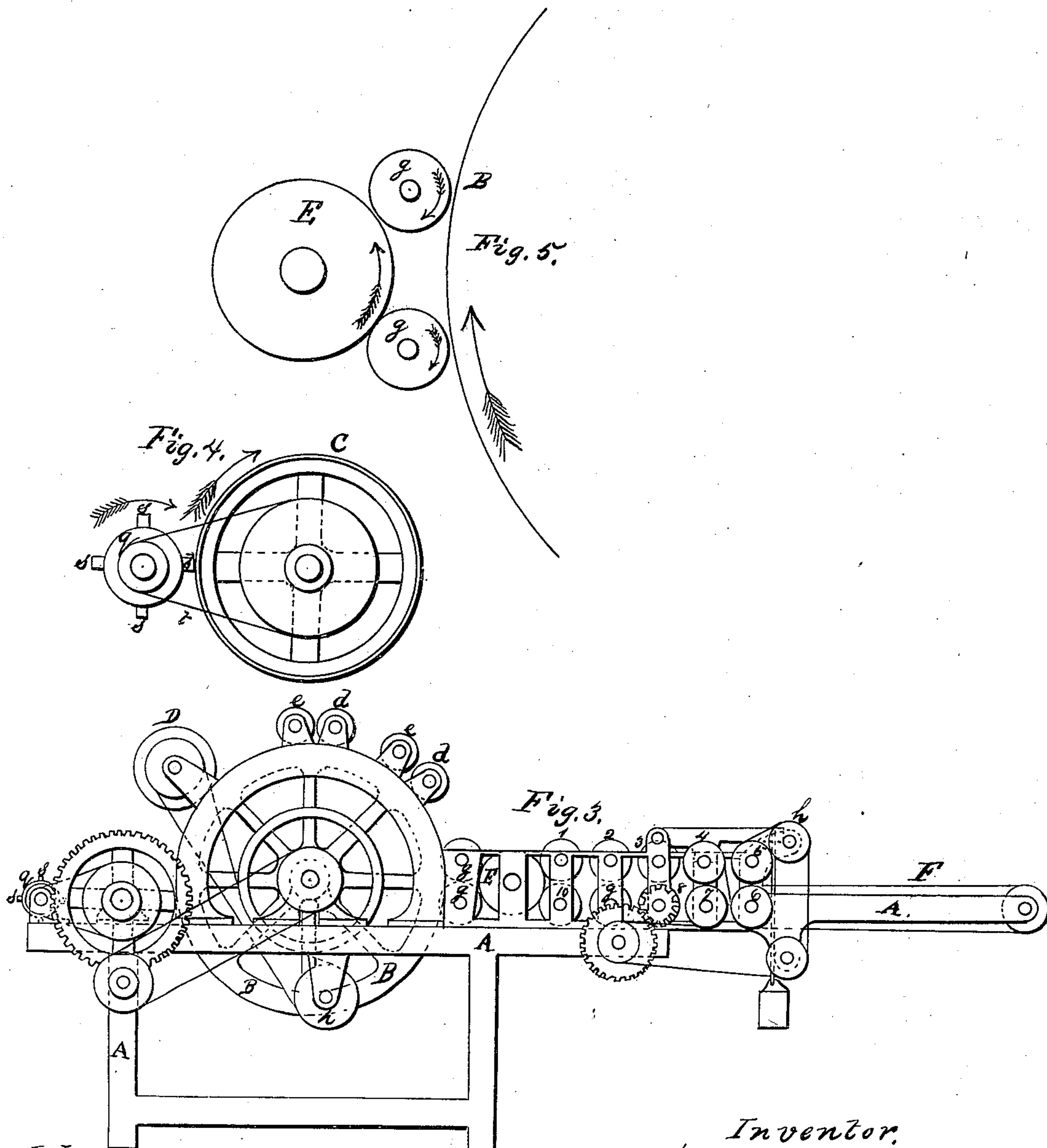
Witnesses:
J. Pearson
John Shinn

Inventor.
James Dennyster
Henry Holcroft

Dempster & Holcroft. Carding Mach.

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F Pearson

John Shinn

Inventor.

James Dempster

Henry Holcroft

United States Patent Office.

JAMES DEMPSTER AND HENRY HOLCROFT, OF MEDIA, PENNSYLVANIA.

Letters Patent No. 96,556, dated November 9, 1869.

IMPROVEMENT IN CARDING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JAMES DEMPSTER and HENRY HOLCROFT, of Media, county of Delaware, and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Carding Fibrous Materials; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a top view.

Figures 2 and 3 are side views.

Figure 4 is an end view of the doffing arrangement.

Figure 5 is an end view of the arrangement for carrying the fibres to the cylinder.

Similar letters in the drawings refer to like parts.

The nature of our invention consists—

First, in an improvement in the feeding-arrangement.

Second, in an improvement in the arrangement to convey the fibres from the burr-roller, or licker-in cylinder, to the main cylinder.

To enable others skilled in the art to which this improvement belongs, to make and operate our improvement, we will now describe the construction of the same, reference being had to the drawings, making a part of this specification, in which—

A represents the card side or frame, which may be made of any suitable design, having an extended projection in the front of the card for the purpose of supporting our improved feed-arrangement.

F is the feed-cloth or apron, which is constructed in the usual manner.

4, 5, 6, and 7 are ordinary feed-rollers.

Just above and in front of these rollers we arrange the roller *h*. The object of this roller will be hereafter described.

This roller *h* is made of the same diameter as the feed-rollers 5 and 6, and covered with wire fillet, the same as the feed-rollers, but in some cases it may not be necessary to cover it with wire.

The method of hanging this roller may be seen in figs. 2 and 3.

1, 2, 3, 8, 9, and 10 are a series of feed-rollers, to convey the fibres from the feed-rollers 4 and 7, to the burr-roller or licker-in E, which is the subject of a patent granted to the above-named JAMES DEMPSTER, June 26, 1866, No. 55,828.

The construction, operation, and design of these rollers are fully specified in that patent, and it is not necessary to describe them here.

E represents the burr-roller, when used on the first braker. When used on the second and third brakers, it is called the licker-in.

g g are two small rollers, covered with wire fillet, which we call tumblers.

Where heretofore one has been used, we use two, and operate them differently, and for a different purpose from that where one only is used.

Without committing ourselves to any size or speed, we purpose to make the roller E about seven inches in diameter, and the rollers *g g* six inches in diameter, and operate them as shown in fig. 5, which will be hereafter described.

The operation of our improvements is as follows:

The wool or cotton is placed on the feed-cloth or apron F, and when a heavy-feed is used, the feed-roller 5 has heretofore had a tendency to push back the wool from the rollers 5 and 6.

In our improvement the roller *h*, being mounted just above and in front of the rollers 5 and 6, and turning down toward the centre of the first pair of feed-rollers, serves as a conductor, conducting the wool into and between the two rollers forming the first pair. This roller *h* may be operated by belt, cord, or chain, and driven from the pulley on spur-wheel, seen in fig. 3.

This improvement enables us to use a much heavier feed or weight of wool on the feed-cloth at one time.

The wool or cotton continues to pass on through the series of rollers, (forming the patent above referred to,) to the burr-roller or licker-in E, and tumblers *g g*.

The cylinder E we propose to run at about fifty revolutions per minute. The top roller *g* we run at about seventy revolutions per minute. The lower roller *g*, at thirty revolutions per minute. This slow speed of the lower roller *g* prevents the knocking off the wool from the roller E, and the wool not taken from the roller E by bottom roller *g* is taken by the upper roller *g*, and carried to the main cylinder B, and then passes on through the card to the doffer, in the usual manner.

The rollers E and *g g* may be operated from a pulley on the doffer-shaft, either by a belt or cord, as shown in the drawings.

All the other parts shown in the drawings are not patentable, and, therefore, it is not necessary to describe them in this specification.

Claims.

We claim—

1. The conducting-roller *h*, in combination with the feed-rollers 5 and 6, as described, for the above purpose.

2. The tumblers *g g*, in combination with the cylinder E, as described, for the above purpose.

Media, September 8, 1869.

JAMES DEMPSTER.
HENRY HOLCROFT.

Witnesses:

F. PEARSON,
JOHN SHINN.