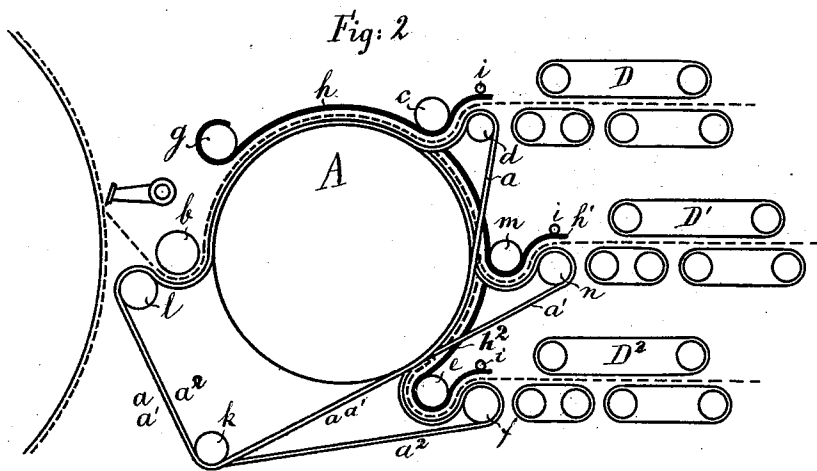
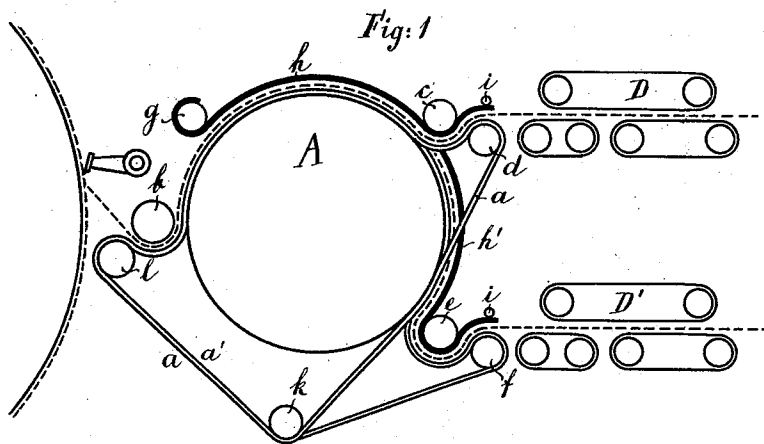


J. P. SCHMITZ.

FLEECE DIVIDING ATTACHMENT FOR CARDING ENGINES.

No. 508,148.

Patented Nov. 7, 1893.



WITNESSES:
Charles Schroeder
Adolph Scherer

INVENTOR
A. P. Schmitz
by *Gaspar Ruyven*
ATTORNEYS.

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Fig. 3.

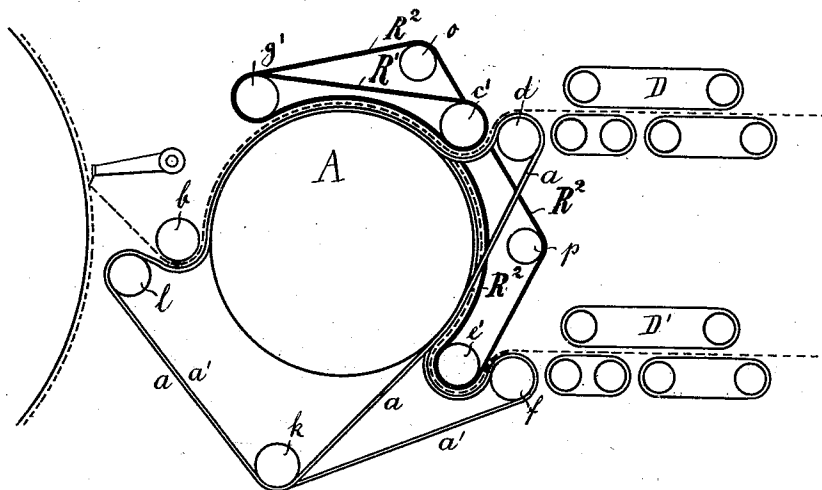
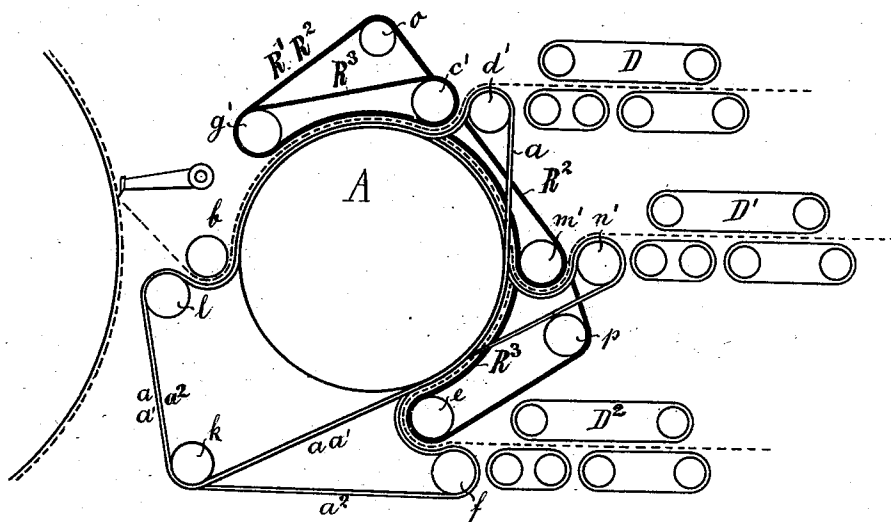


Fig. 4



WITNESSES:
Charles Schroeder
Adolph Scherer

INVENTOR
J. P. Schmitz
by Guipel & Baeyer
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHANN PETER SCHMITZ, OF AACHEN, GERMANY.

FLEECE-DIVIDING ATTACHMENT FOR CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 508,148, dated November 7, 1893.

Application filed July 19, 1893. Serial No. 480,893. (No model.)

To all whom it may concern:

Be it known that I, JOHANN PETER SCHMITZ, a subject of the King of Prussia, and a resident of Aachen, Germany, have invented certain new and useful Improvements in Fleece-Dividing Attachments for Carding-Engines, of which the following is a specification.

In the fleece-dividing devices for carding engines used heretofore, two separating rollers and two systems of crossing straps or steel bands were used, between which the fleece was divided.

The object of my invention is to provide a fleece dividing apparatus which only has a single dividing roller, and the straps or steel bands are not crossed.

In the accompanying drawings, Figures 1, 2, 3 and 4 are vertical transverse sectional views of different constructions of my improved apparatus for dividing the fleece of carding engines.

Similar letters of reference indicate corresponding parts in all the figures.

On the smooth dividing roller A, as many endless straps or bands are arranged side by side as slivers are to be obtained. These endless straps or bands are alternately guided in different ways accordingly as the slivers of fleece are to be taken off at two or more different points. If the fleece is to be taken off at two different points, as shown in Fig. 1, the endless straps of even numbers are guided in a certain way and the straps of odd numbers in another way. The endless bands or straps of even number *a*, for example, run from the tension roller *l* arranged adjacent to the combing roller under the roller *b*, over the dividing roller A, then under the roller *c*, over the roller *d*, then again over part of the dividing roller A, under the roller *e*, and finally over the roller *k* to the roller *l*. The straps or bands of odd numbers run from the roller *l* under the roller *b*, over part of the dividing roller A, and leave the latter at the roller *e* and pass under said roller *e* and over the roller *f*, and then run under the roller *k* to the roller *l*. Corresponding to the endless straps or bands *a a'*, steel guide bands *h h'* are arranged, which are fastened on the fixed shaft *g*. The steel guide-bands above the endless strap *a* pass with the same under the

roller *c* to the roller *d*, whereas the steel guide-bands *h'* above the endless straps *a'* pass under the roller *e* and extend over the roller *f*. The fleece is guided between the endless bands *a a'* and the steel guide-bands *h h'*, and after the same has been disengaged by the knife from the combing roller it passes under the roller *b* and upon the endless bands *a a'*, arranged side by side, and is carried along by said bands until it passes under the shaft *g* below the steel bands *h h'*, so that it is carried along between said steel bands and the endless straps. At the roller *c*, the fleece is divided and at this point the endless straps *a* corresponding to the guide-bands *h* deliver the fleece between them, in between the conveying device D, whereas the endless straps *a'* and the steel bands *h'* carry the fleece between them to the roller *e*, where they deliver it upon the conveying device D'.

In Fig. 2 a modification is shown, in which the fleece is taken off at a third point corresponding to the endless straps *a³*, and the steel bands are divided into three different groups, *h, h', h²*, in such a manner that the first, fourth, seventh, &c., second, fifth, eighth, &c., endless strap or steel guide-band is conducted and arranged in the same manner. The endless straps *a* run from the roller *l* under the roller *b* upon the dividing roller A, leave the same at the roller *c*, pass over the roller *d* back to the roller A, to the roller *k*, and finally back to the roller *l*. The straps *a'* run from the roller *l* to the roller *b*, upon the dividing roller A, leave the same at the roller *m*, pass under the roller *m* to the roller *n*, and from the roller *n* under the roller *k* back to the roller *l*. The endless straps *a²* run from the roller *l* under the roller *b* upon the dividing roller A, run on the same to the roller *e*, pass under the roller *e* upon the roller *f*, and from the same over the roller *k* back to the roller *l*. Correspondingly, the steel guide-bands *h* extend from the shaft *g* to the roller *c*, and under the same upon the roller *d*. The steel bands *h'* are carried in the same way to the rollers *m* and *n*, and the steel guide-bands *h²* to the rollers *e f*. From the rollers *d n* and *f* respectively, the fleece slivers are delivered to the conveyers D D' D² respectively. Above the ends of the steel guide-bands, smaller

pressure rollers *i* are arranged, which hold the ends of said steel bands adjacent to the rollers below them.

In Figs. 3 and 4, a modified construction of the apparatus is shown, the steel guide-bands being replaced by endless straps. On the dividing roller A, in Fig. 3 the straps *a a'* are arranged in the same manner as shown in Fig. 1. In place of the steel guide-bands *h* and *h'*, endless bands *R' R²* are used. The bands *R'* run over the rollers *g' c'*, and the lower parts rest on the circumference of the dividing roller A. The endless bands *R²* run from the roller *g'* over the dividing roller A to the roller *e'* and over the rollers *p* and *o* to the roller *g'*. In Fig. 4, the endless straps *a a' a²* are arranged in the same manner as in Fig. 2, and the steel bands *h h' h²* are replaced by endless bands *R' R² R³*. The endless straps *R'* run over the rollers *g' c'*. The endless bands *R²* run from roller *g'* over the dividing roller A, to the roller *m'*, and from there back over the roller *o* to the roller *g'*. The endless bands *R³* run from the roller *g'* over the dividing roller A to the roller *e'*, and from the same to rollers *p m'* and *o* to the

roller *g'*. The two classes of machines operate substantially the same, but in one the fleece is conducted between an endless strap or band and a steel band, and in the other between two endless bands.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

An apparatus for dividing the fleece of carding engines, constructed with a single dividing roller and with a series of adjacent straps running different distances over the dividing roller and leaving the dividing roller at points near the respective conveying devices and a guide for the fleece above each of said endless bands or straps, which guides extend to the place where the fleece is to be taken off, and between which guides and endless straps or bands, the fleece is guided.

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

JOHANN PETER SCHMITZ.

Witnesses:

A. BRANDT,

CARL KEMMERFELDT.