

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



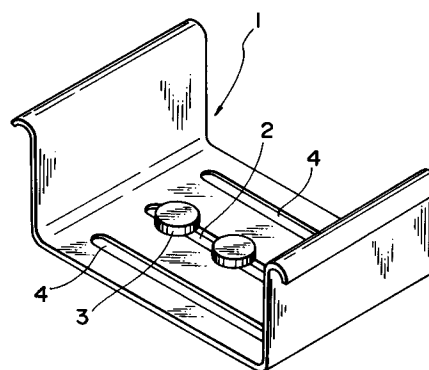
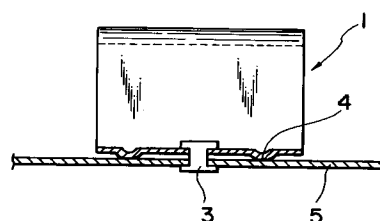
(11) Publication number:

0 508 122 A1

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **92104018.4**(51) Int. Cl.⁵: **D01H 5/64**(22) Date of filing: **09.03.92**(30) Priority: **14.03.91 JP 14876/91 U**(43) Date of publication of application:
14.10.92 Bulletin 92/42(84) Designated Contracting States:
CH DE ES FR GB IT LI(71) Applicant: **MURAO AND COMPANY LIMITED**
21-9, Izuminode-machi 2-chome
Kanazawa-shi, Ishikawa-Ken(JP)(72) Inventor: **Sanno, Hiroaki**
11-28, Sumiyoshi-Cho, Nonoichi-Machi
Ishikawa-Gun, Ishikawa-Ken(JP)
Inventor: **Nakayama, Hiroshi**
25-14, Houshima-Machi
Kanazawa-Shi, Ishikawa-Ken(JP)(74) Representative: **Wagner, Karl H. et al**
WAGNER & GEYER Patentanwälte
Gewuerzmuehlstrasse 5 Postfach 22 14 39
W-8000 München 22(DE)(54) **Clearer for draft rollers.**

(57) A clearer for draft rollers (13) is provided, wherein a slot (2) is provided on the bottom of a cloth guide (1), and the cloth guide is secured to a cloth plate (5) with a rivet (3) whose head diameter is larger than the width of the slot (2), to be held so that it is slidable relative to the cloth plate. At the same time, it has a configuration wherein an even number of ribs (4) is provided on the bottom of the cloth guide (1) to maintain a gap between the bottom of the cloth guide (1) and the cloth plate (5) so that there is no need for the work of changing the position of the cloth guide (1) even if there is a change in the roller gauges between the draft rollers (13).

FIG. 1(a)**FIG. 1(b)****EP 0 508 122 A1**

Background of the Invention

[Field of the Invention]

The present invention relates to a cloth guide for draft rollers provided on spinning machinery, which is for moving a clearer cloth to remove scraps of fiber sticking to the surface of the draft rollers and more particularly to a cloth guide for urging a clearer cloth onto draft rollers for a type of clearer device wherein a clearer cloth is sequentially fed and the scraps of fiber sticking to the surface of the said clearer cloth is removed by combing.

[Description of the Related Arts]

As shown in Fig. 2, a cloth guide 14 has been screwed on a cloth plate 11 with a screw 12 in the prior art. As a result, the position wherein the said cloth guide 14 is fixed must be changed frequently as roller gauges 15 between draft rollers 13 are changed depending on the types of fibers such as natural fibers, chemical and synthetic fibers, and various short and long fibers.

On the other hand, many pieces of spinning machinery are in general installed at a time to meet the demands for mass production capability realized by promoting use of large packages and enhancing the speed and performance. As a result, operators of spinning machinery spend a great amount of time in changing the roller gauges 15 between draft rollers and the position wherein the cloth guide 14 is fixed in response to frequent changes in the types of fibers processed. At the same time, there is always a rush for production of diversified items in small quantities in order to meet the demands in marketplace reflecting the consumers' liking which has been increasingly individualized in recent years. There is a serious problem that the types of fibers must be changed more frequently in order to solve this critical problem, resulting in an increase in the time spent for such changing work.

Summary of the Invention

It is an object of the present invention to provide a clearer which does not require the work of changing the position of a cloth guide when the roller gauges 15 between the draft rollers 13 are changed.

A conventional cloth guide has a screw hole on the bottom thereof and is fixed to a cloth plate with a screw. According to the present invention, such a configuration is modified to have a slot instead of the screw hole.

Brief Description of the Drawings

Fig. 1 shows a cloth guide according to the present invention. (a) is a perspective view of a cloth guide which has a slot and is secured to a cloth plate with a rivet to be held so that it is slidable relative to the cloth plate. (b) is a sectional side view of the said cloth guide.

Fig. 2 is a configuration diagram showing a cloth guide of a conventional clearer for draft rollers.

Detailed Description of the Preferred Embodiment

Fig. 1(a) and Fig. 1(b) are diagrams showing an embodiment of a cloth guide for a clearer according to the present invention. In the figures, 1 represents a cloth guide; 2 represents a slot provided on the cloth guide; and 3 represents a rivet whose head diameter is larger than the width of the said slot and which is secured to a cloth plate 5. Thus, the cloth guide 1 does not come off the rivet 3 and is held so that it is slidable relative to the cloth plate. 4 represents a rib which is disposed for maintaining a gap between the bottom of the cloth guide 1 and the cloth plate 5 so that slide-resistance between the cloth guide and the cloth plate is reduced; the cloth guide is slidable relative to the cloth plate; and the strength of the cloth guide is maintained.

With the cloth guide 1 set on the cloth plate 5 in such a manner, when roller gauges 15 are changed, the force exerted upon the cloth guide 1 by clearer cloth 16 becomes unbalanced, and the cloth guide 1 naturally automatically slides to a position at which the force exerted upon the cloth guide 1 is balanced, i.e., a dynamic middle point between the draft rollers. As a result, there is no need for the work of changing the position of the cloth guide because the cloth guide automatically moves even if there is a change in the roller gauges between the draft rollers.

The configuration as described above provides a significant advantage that there is no need for the work of changing the position of the cloth guide if there is a change in the roller gauges between the draft rollers.

Fig. 1 shows a specific embodiment. The present invention is not limited to the illustrated example and can be similarly implemented with partial changes in the structure or design thereof in accordance with the teachings described above and later.

Claims

1. A clearer for clearing draft rollers comprising a cloth guide for urging a clearer cloth onto the

draft rollers which is configurated so that it can slide relative to the movement of the draft rollers.

5

10

15

20

25

30

35

40

45

50

55

FIG. 1 (a)

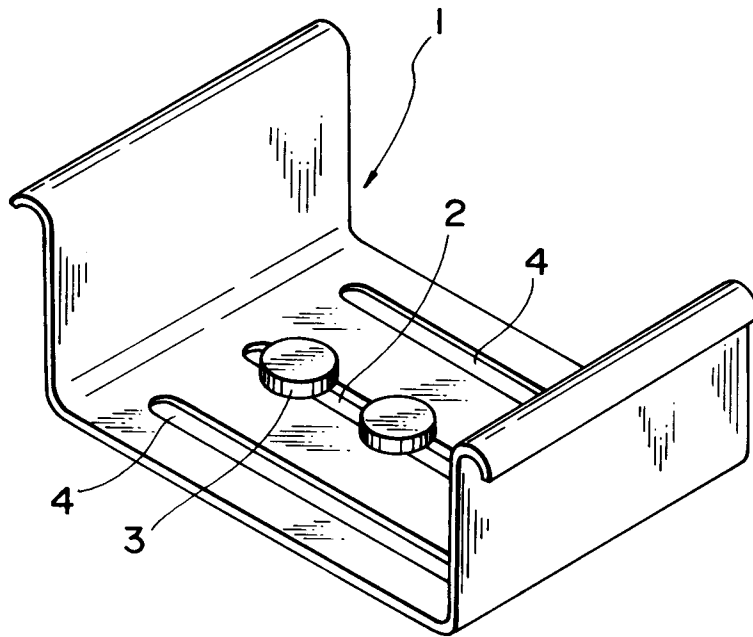


FIG. 1 (b)

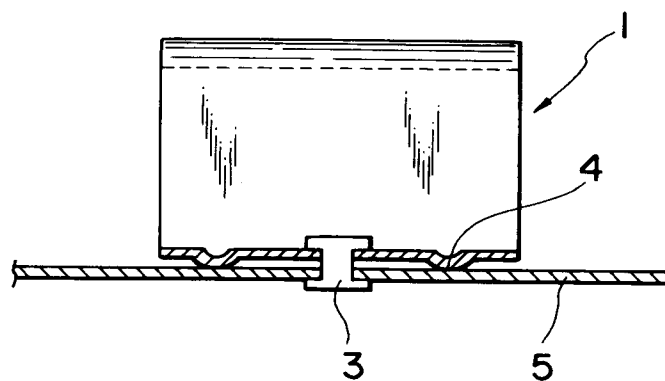
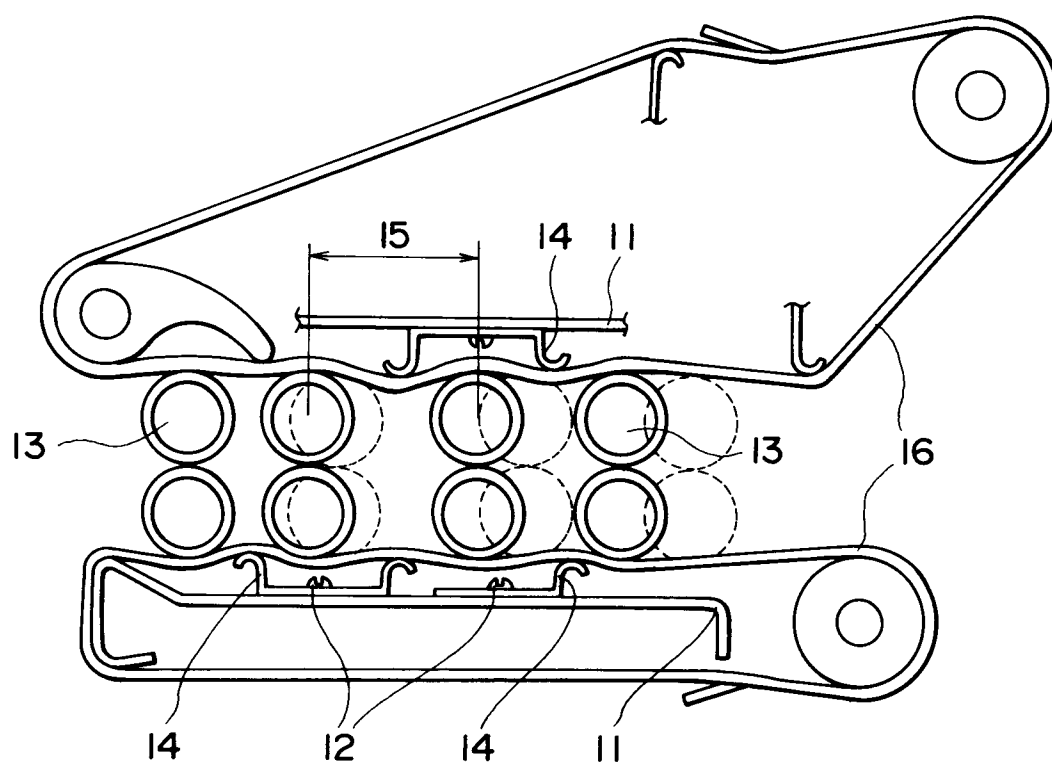


FIG. 2





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 10 4018

DOCUMENTS CONSIDERED TO BE RELEVANT

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	EP-A-0 021 272 (MURAO) * page 5, line 24 - page 6, line 1 * * page 6, line 15 - line 18; figures 1-4 * ---	1	D01H5/64
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 270 (C-515)(3117) 27 July 1988 & JP-A-63 050 534 (MURAO) 3 March 1988 * abstract * ---	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5) D01H
A	GB-A-891 614 (CORDIS) * the whole document * ---	1	
A	US-A-2 735 142 (NOILES) * the whole document * ---	1	
A	US-A-2 951 268 (WEST) * the whole document * -----	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 JUNE 1992	Examiner RAYBOULD B. D. J.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	