(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 358 935 A1**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **89114554.2**

(51) Int. Cl.[5]: **D03D 47/20**

(22) Date of filing: **07.08.89**

(30) Priority: **12.09.88 IT 2183388**

(43) Date of publication of application:
21.03.90 Bulletin 90/12

(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

(71) Applicant: **SOMET SOCIETA' MECCANICA TESSILE S.p.A.**
Provinciale Valseriana Km. 23
I-24020 Colzate-Bergamo(IT)

(72) Inventor: **Viscardi, Ettore**
Via Rossini, 12
I-24027 Nembro (Bergamo)(IT)

(74) Representative: **Vatti, Paolo, Dr. Ing. et al**
Fumero - Studio Consulenza Brevetti
Widenmayerstrasse 4/I
D-8000 München 22(DE)

(54) Pair of weft grippers for looms with interchangeable bottom lining.

(57) In a pair of weft grippers (1) for looms, the ribs engaging with the guide elements are formed on a bottom lining (4), applied on the lower part of said grippers (1) and interchangeable.

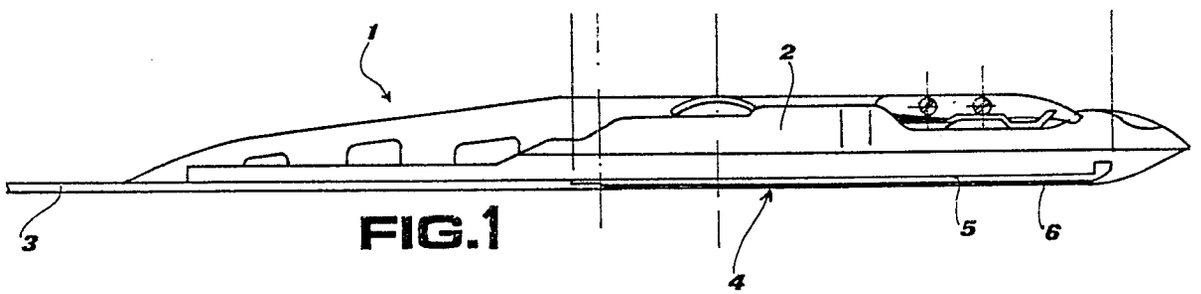

FIG.1

EP 0 358 935 A1

PAIR OF WEFT GRIPPERS FOR LOOMS WITH INTERCHANGEABLE BOTTOM LINING

The present invention concerns improvements in weft grippers for looms.

It is known that the fast progress in the field of looms equipped with weft yarn transport grippers has determined wide changes both in the configuration and structure of said members and in the materials used to produce the same. Among these, plastic materials are successfully used at present.

A drawback of grippers made of plastic material lies in the relatively fast wear of the "ribs" by means of which the grippers engage into the guide elements of the loom and slide in respect thereof, which ribs, having been formed up-to-date as an integrating part of the gripper body, inevitably lead - when worn - to the replacement of the whole gripper.

The present invention proposes to avoid the above drawback, with obvious economic advantages, by supplying a pair of weft grippers for looms which are characterized in that the ribs engaging with the guide elements are formed on a bottom lining, applied on the lower part of said grippers and interchangeable.

Said bottom lining is made of the same plastic material forming the gripper, but is coated with a sheet of composite material consisting of a fabric impregnated with a thermosetting resin, which is applied as an insert into the molded piece directly in the injection mold.

The bottom lining according to the invention is removably applied to the gripper body, and is replaced as soon as the ribs are too worn.

The invention is illustrated on the accompanying drawings which show a practical embodiment thereof and in which:

Fig. 1 is a side view of a carrying gripper according to the invention;

Fig. 2 is a bottom view of the lining applied on the lower part of the body of the gripper shown in figure 1;

Fig. 3 is a section view, along the line III-III of fig. 2, of the bottom lining shown in said figure; and

Figs. 4 to 6 are similar views of a drawing gripper according to the invention.

With reference to the drawings, fig. 1 shows a side view of the carrying gripper 1 according to the invention, to the body 2 of which -fixed to the strap 3 controlling the motion thereof - an interchangeable bottom lining 4 is removably applied by mechanical means (for instance screws).

Said bottom lining consists - as clearly shown in figs. 2 and 3 - of a shaped slab 5 made of the same plastic material as the gripper and coated with a sheet 6 of composite material consisting of a fabric impregnated with a thermosetting resin. The sheet 6 is applied to the shaped slab 5 as an insert into the molded piece, by being inserted directly in the injection mold and connecting the two parts by mutually engaging portions 7.

The bottom lining 4 is removably applied on the lower part of the gripper 1 by conventional mechanical means, for example - as already mentioned - by means of screws inserted into countersunk holes as 8.

In use, the sides 9 of the bottom lining 4 engage with the metal guide elements of the loom, providing greater resistance to wear, proper to the coating sheet 6, on their side contacting said elements. The warp yarns contact the same coating, also in this case with obvious advantages in view of the rubbing which they produce: wear of the bottom lining, deriving from engagement with the warp yarns, is in fact less than in the conventional grippers, while the surface onto which rub the warp yarns keeps - by nature - very smooth, with very reduced stresses on said yarns.

In any case, when the wears of the bottom lining 4 reach unacceptable or inconvenient values, it is sufficient to remove the worn bottom lining and quickly replace it by a new one in order to dispose of a perfectly efficient gripper, with no need to replace the same.

Figs. 5 and 6 show a bottom lining 10 having characteristics fully similar to the bottom lining 4, but to be applied to a drawing gripper 11 as that shown in fig. 4. The other similar parts are marked with the same reference numbers as in the previous figures.

Claims

1) Pair of weft grippers for looms, characterized in that the ribs engaging with the guide elements are formed on a bottom lining, applied on the lower part of said grippers and interchangeable.

2) Pair of weft grippers as in claim 1), wherein said bottom lining is made of the same plastic material forming the gripper, but is coated with a sheet of composite material consisting of a fabric impregnated with a thermosetting resin.

3) Pair of weft grippers as in claims 1) and 2), wherein said sheet is applied to the bottom lining as an insert into the molded piece.

4) Pair of weft grippers as in claims 1) to 3), wherein said bottom lining is removably applied to the gripper body, for instance by means of screws.

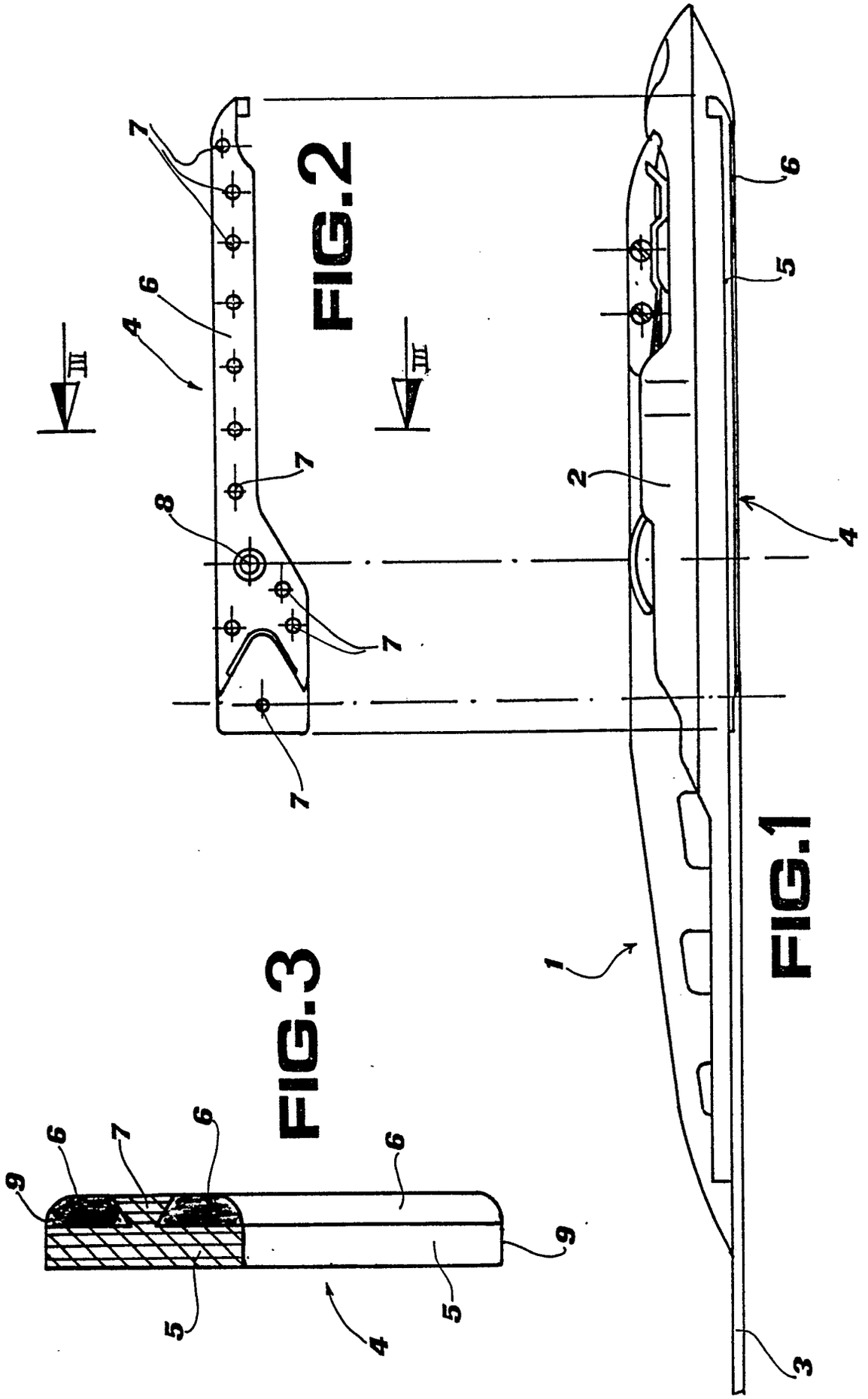

FIG.1

FIG.2

FIG.3

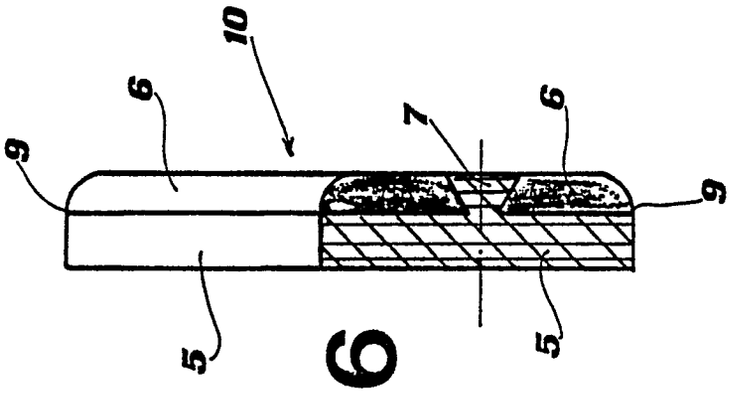

FIG.6

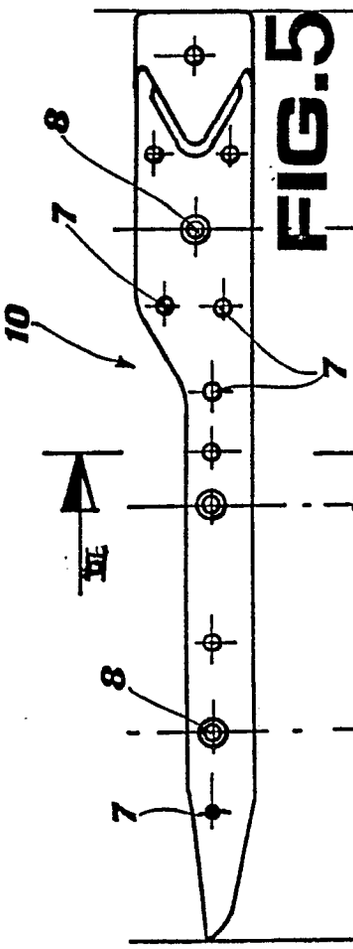

FIG.5

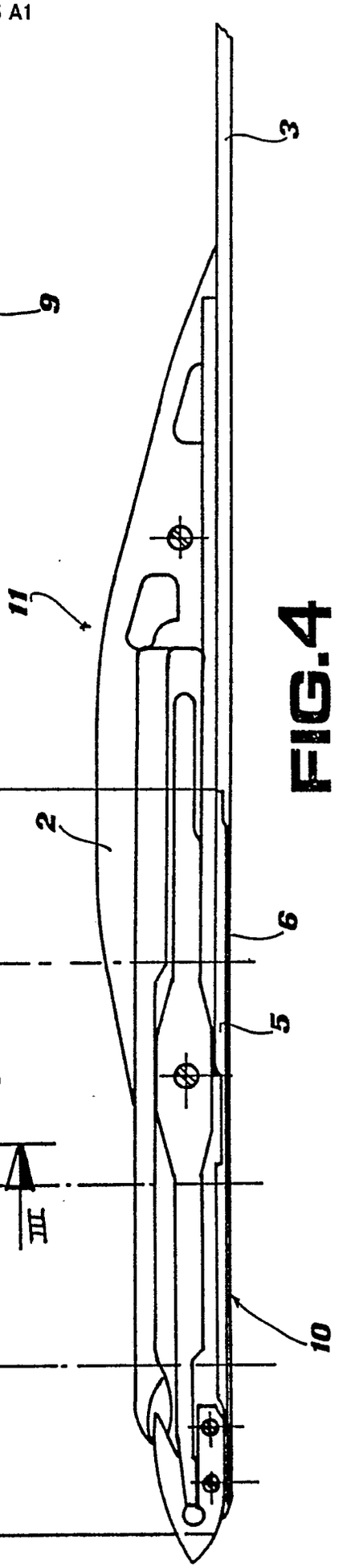

FIG.4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 89 11 4554

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	DE-B-1535370 (ROCKWELL) * the whole document *	1, 4	D03D47/20
A	DE-A-2400166 (RUTI)		
A	FR-A-2541321 (CARRARA)		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			D03D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	13 DECEMBER 1989	BOUTELEGIER C.H.H.

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

EPO FORM 1503 03.82 (P0401)