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(54) Fabric piece supporting carriage for spreading fabrics on fabric spreading tables.

(57) A carriage for spreading fabrics on fabric spreading tables,for forming a fabric mattress,comprises a rotary turret supporting a fabric bearing cylindrical member and a spreading/cutting assembly which is slidably mounted on vertical guides and can be displaced to the bottom portion of the turret so as to turn with the latter.

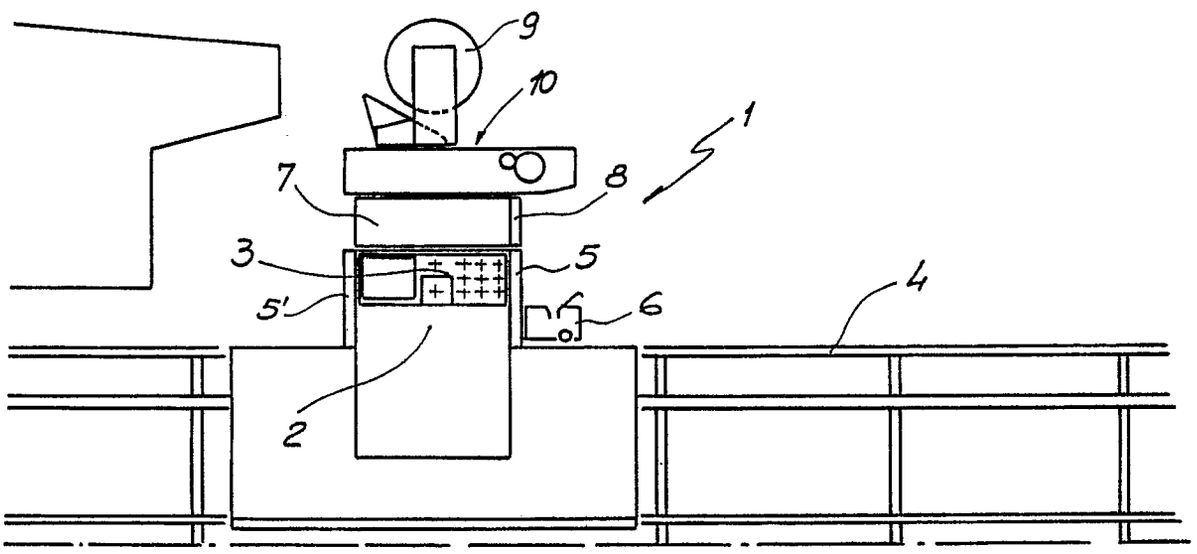

Fig.1

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BACKGROUND OF THE INVENTION

The present invention relates to an improved fabric piece supporting carriage for spreading fabrics on fabric spreading or unwinding tables like those used in the cloth article making shops.

As is known,for making cloth articles,the fabrics are spread,before cutting,in superimposed aligned layers,so as to form the so called fabric mattress,of a set thickness.

This preliminary operating step is advantageously carried out,by means of a semiautomatic type of method, by using a spreading or unwinding table thereon a fabric piece supporting carriage is reciprocated.

Also known is the fact that as value fashion cloth articles must be made,it is necessary to superimposition cut the cloth left and right parts of each individual cloth article.

This requirement is met by spreading the fabric plies with opposite faces,that is by preliminarily turning the fabric piece supporting turret through an angle of substantially 180°.

On the other hand,for turning the turret of conventional fabric spreading machines it is necessary to preliminarily take up a portion of the fabric,upon having disengaged it from the fabric cutter assembly.

Thus,after having turned the turret,it is necessary to provide the machine with a new fabric pattern, by restraining the starting portion of the fabric to be spread in a fabric locking device provided on the mentioned cutter assembly.

This fabric rearranging operation,in addition to requiring a lot of time,also causes great fabric wastes, since the new fabric end portion does not frequently coincides with the end portion of the already spread fabric plies.

SUMMARY OF THE INVENTION

Accordingly,the aim of the present invention is to overcome the above mentioned drawbacks,by providing a fabric piece supporting carriage specifically designed for facilitating the spreading of opposite face fabric ply pairs.

Within the scope of the above mentioned aim,a main object of the present invention is to provide such a fabric piece supporting carriage which is adapted to spread the fabric in a fully automatic way.

Another object of the present invention is to provide such a fabric piece supporting carriage which does not involve any waste of fabric.

According to the present invention,the above mentioned aim and objects,as well as yet other objects, which will become more apparent hereinafter,are achieved by a fabric piece supporting carriage for spreading a fabric piece on a spreading table,characterized in that said carriage comprises a rotary turret supporting a fabric piece supporting cylindrical element,and a fabric spreading/cutting assembly slidably mounted on vertical guides and adapted to be driven to a bottom portion of said rotary turret so as to turn therewith.

BRIEF DESCRIPTION OF THE DRAWINGS

Further characteristics and advantages of the fabric piece supporting carriage according to the present invention will become more apparent from the following detailed description of a preferred,though not exclusive, embodiment thereof,which is illustrated,by way of an indicative but not limitative example,in the accompanying drawings,where:

FIGURE 1 is a schematic view illustrating the carriage according to the present invention arranged on a fabric piece spreading table;

FIGURES 2 to 5 show the several operating steps carried out by the carriage for spreading two opposite face fabric plies.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

With reference to the figures of the accompanying drawings,the improved fabric piece supporting carriage according to the present invention,and which has been overally indicated at the reference number 1, comprises a carriage frame 2 bearing a control panel 3 and adapted to be reciprocately driven along a spreading or unwinding table 4 of a conventional known type.

On the two opposite walls of the frame,perpendicular to the driving direction,there are mounted corresponding pairs of vertical guides,respectively indicated at 5 and 5′,which are adapted to slidably restrain the fabric piece spreading or cutting assembly 6.

Above the mentioned frame,there is provided a

rotary turret 7,also of a substantially known type,which has a top plane size equal to the size of said frame.

The rotary turret 7 supports,on one of the main walls thereof,a pair of vertical guides 8 the axes of which coincide with the axes of one of the mentioned guide pairs.

Said guide pairs and spreading assembly, in particular,are so arranged that said assembly can be driven in a timed way along said guides.

In order to drive that assembly it would be possible to provide driving racks(not specifically shown) applied on the bottom guides 5 and 5′ and top guides 8,therewith two driven sprockets articulated to the mentioned spreading assembly would cooperate.

In operation,after having spread a first fabric ply on the spreading table (fig.1) and cut the fabric by the spreading and cutting assembly 6,this assembly will be driven,as shown in fig.2,on the guide 8 pair provided on the rotary turret.

Then,the turret 7 will be rotatively driven (figures 3 and 4) so as to bring the mentioned guides 8 and spreading assembly onto the vertical line passing through the guide pair 5′.

In this connection it should be pointed out that this rotary step is advantageously carried out during the displacement of the carriage to the end of the table 4 where there is started the unwinding of the fabric to be cut.

Then,the fabric spreading assembly is moved again to the bottom of the frame 2 and the carriage will be driven toward the central portion of the spreading table so as to spread an opposite face fabric ply,i.e. a fabric ply having a reverse face with respect to that of the already spread ply.

By the disclosed constructional and operating means the fabric 9 supported by the supporting member 10,rigid with the rotary turret 7,will be always locked in the cutting assembly,up to the end of the spreading operations.

Thus there are fully eliminated all of the dead periods for recovering the fabric and putting it on the machine after each individual spreading,thereby preventing any fabric waste.

For completeness,to the foregoing it is to be added that an electronic control unit is moreover provided,adapted to assure a very accurate realignment both in the weft direction and in the warp (selvage) direction.

From the above disclosure it should be apparent that the invention fully achieves the intended aim and objects.

While the invention has been disclosed and illustrated with reference to a preferred embodiment thereof,it should be apparent that the disclosed embodiment is susceptible to several modifications and variations all of which will come within the spirit and scope of the appended claims.

Claims

1- A fabric piece supporting carriage,for spreading a fabric piece on a spreading table,characterized in that said carriage comprises a rotary turret,a fabric piece supporting cylindrical element on said rotary turret,and a spreading assembly slidably driven on vertical guides and adapted to be moved to a bottom portion of said rotary turret to turn therewith.

2- A carriage according to claim 1,wherein said carriage comprises a frame supporting a control panel and reciprocately driven along said spreading table,said frame including two opposite walls bearing vertical guide pairs therealong said spreading assembly is slidably driven.

3- A carriage according to claim 2,wherein said rotary turret is supported on said frame,said rotary turret having a main wall supporting a pair of vertical guides the axes of which coincide with the axes of one of said vertical guide pairs.

4- A carriage according to claim 2,wherein said guide pairs comprise bottom and top guide pairs thereon there are supported racks cooperating with driven sprockets supported on said spreading assembly for driving said spreading assembly along said bottom and top guide pairs.

5- A carriage according to claim 1,wherein said carriage comprises an electronic control unit for controlling the fabric piece being spread so as align said fabric piece being spread on already spread fabric ply both in a weft and in a warp direction.

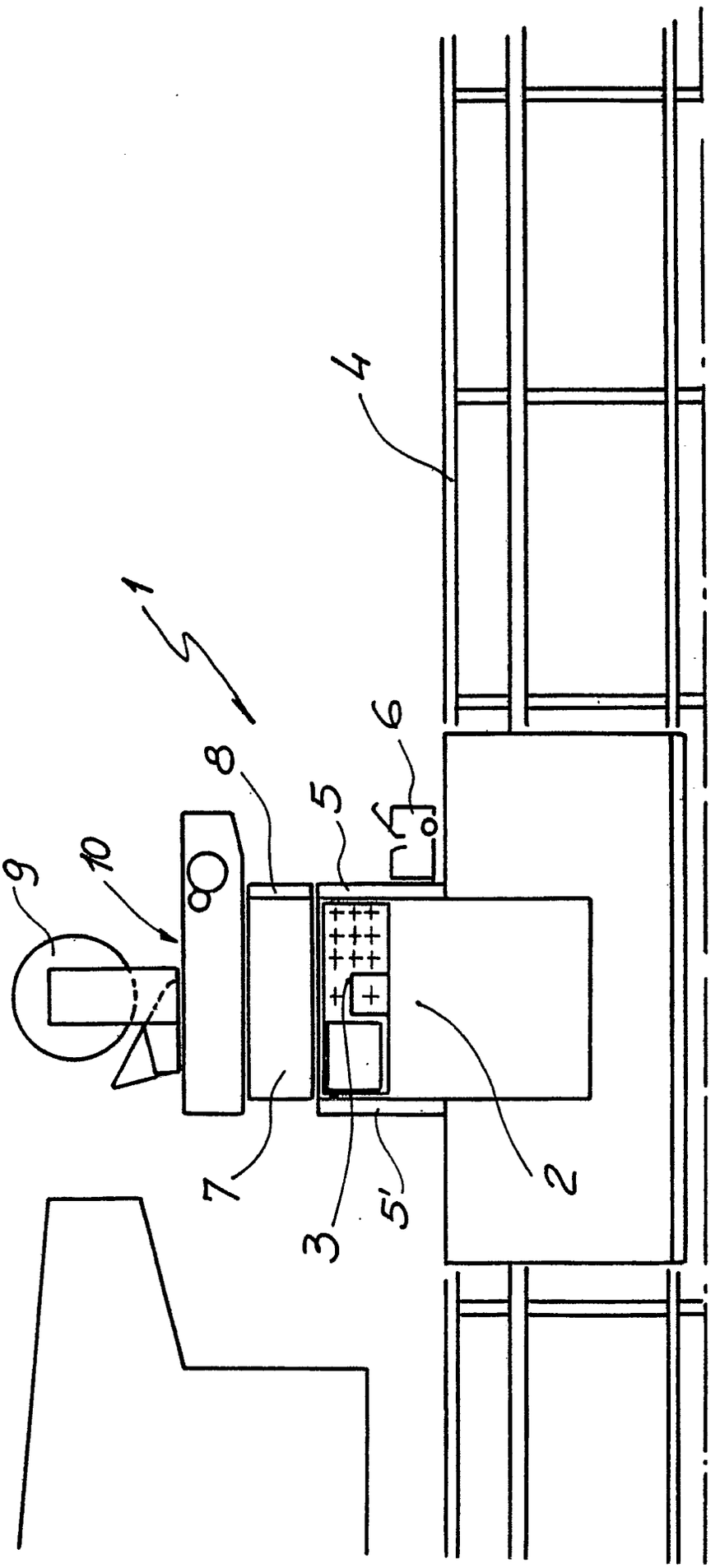

Fig.1

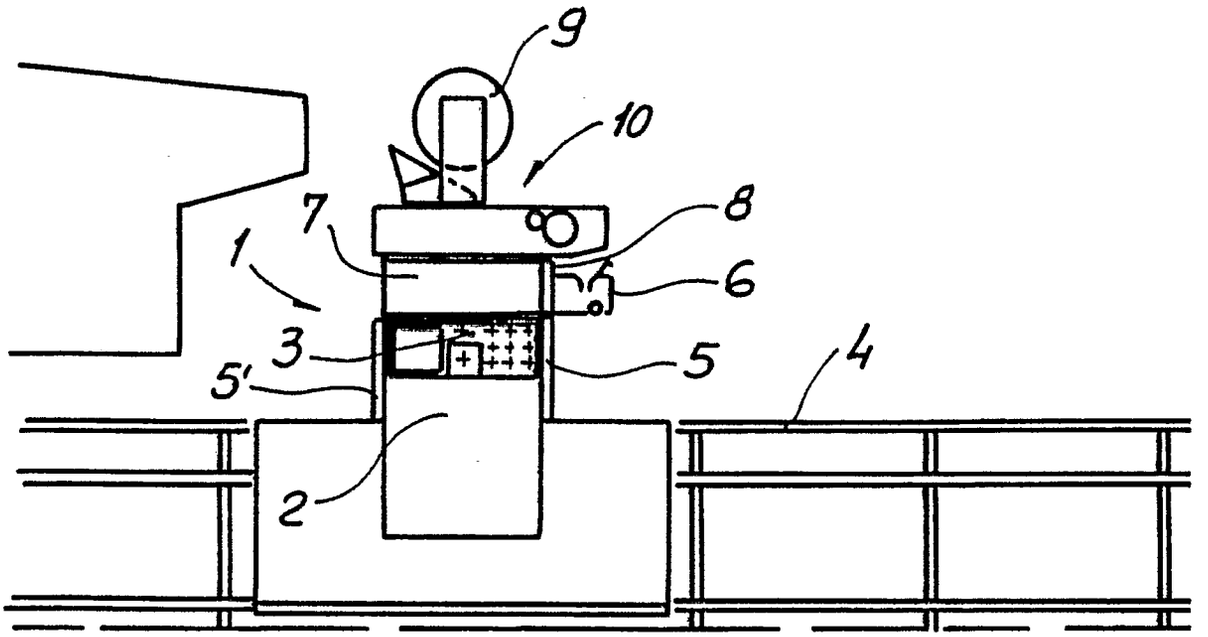

Fig.2

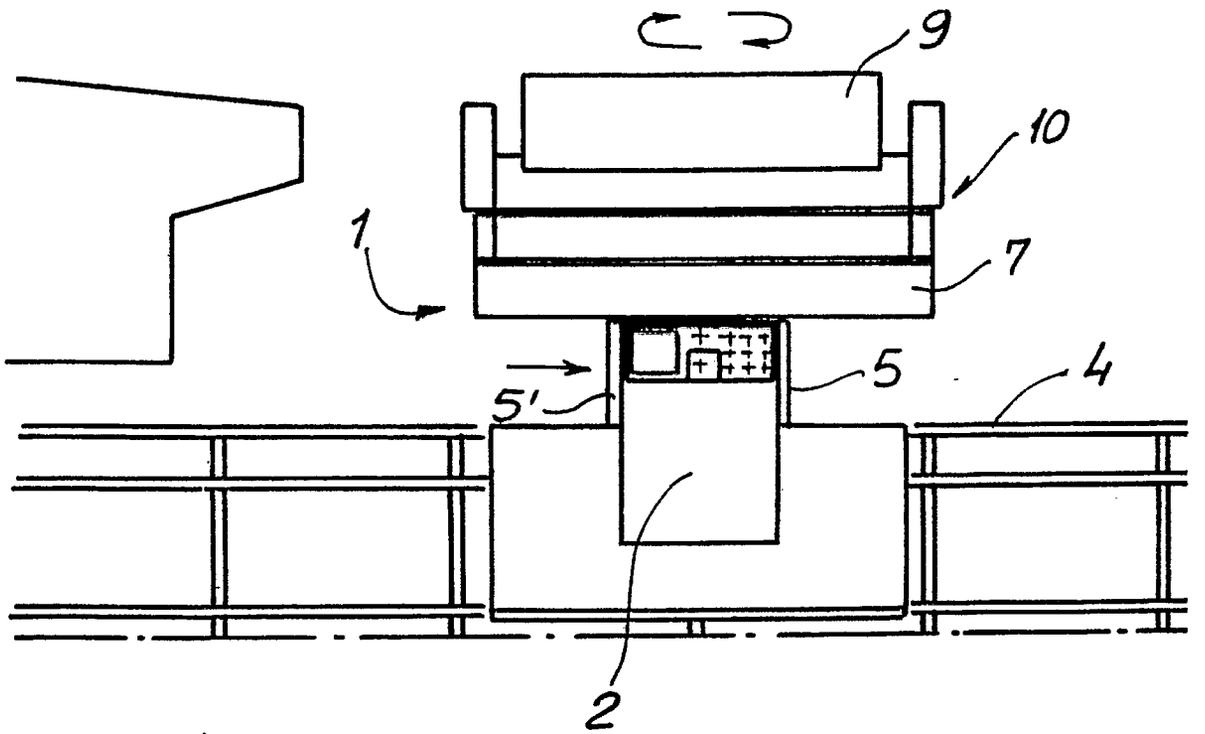

Fig.3

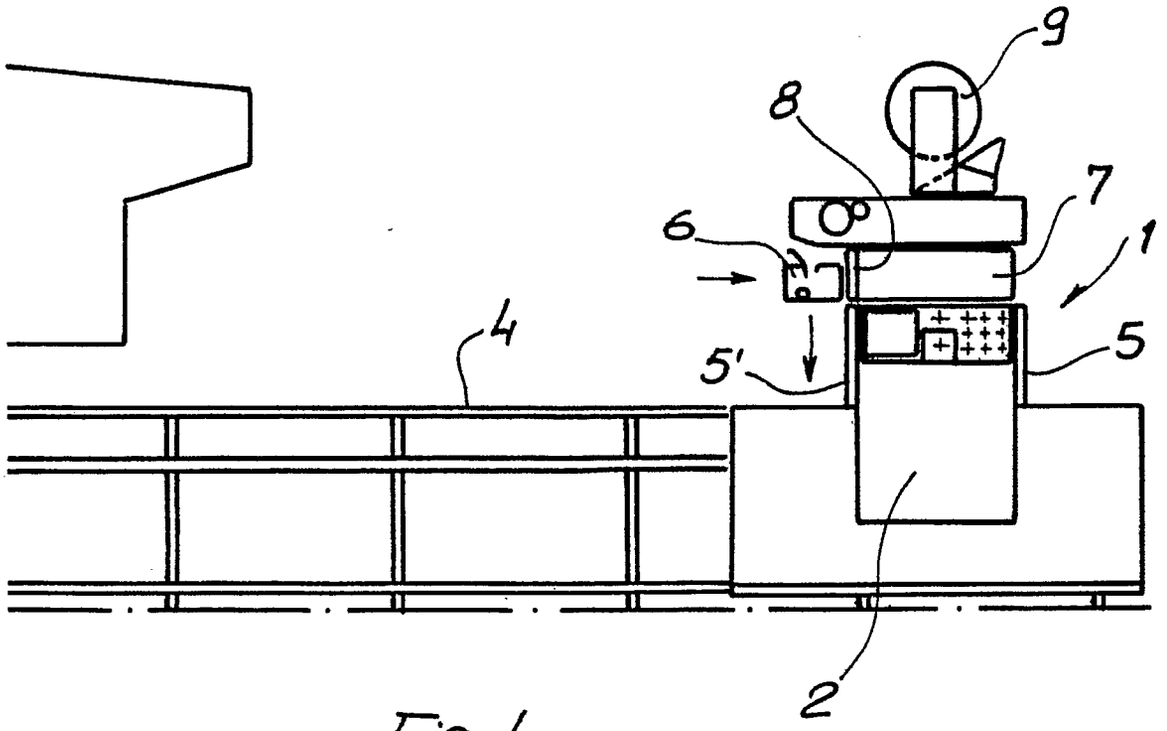

Fig. 4

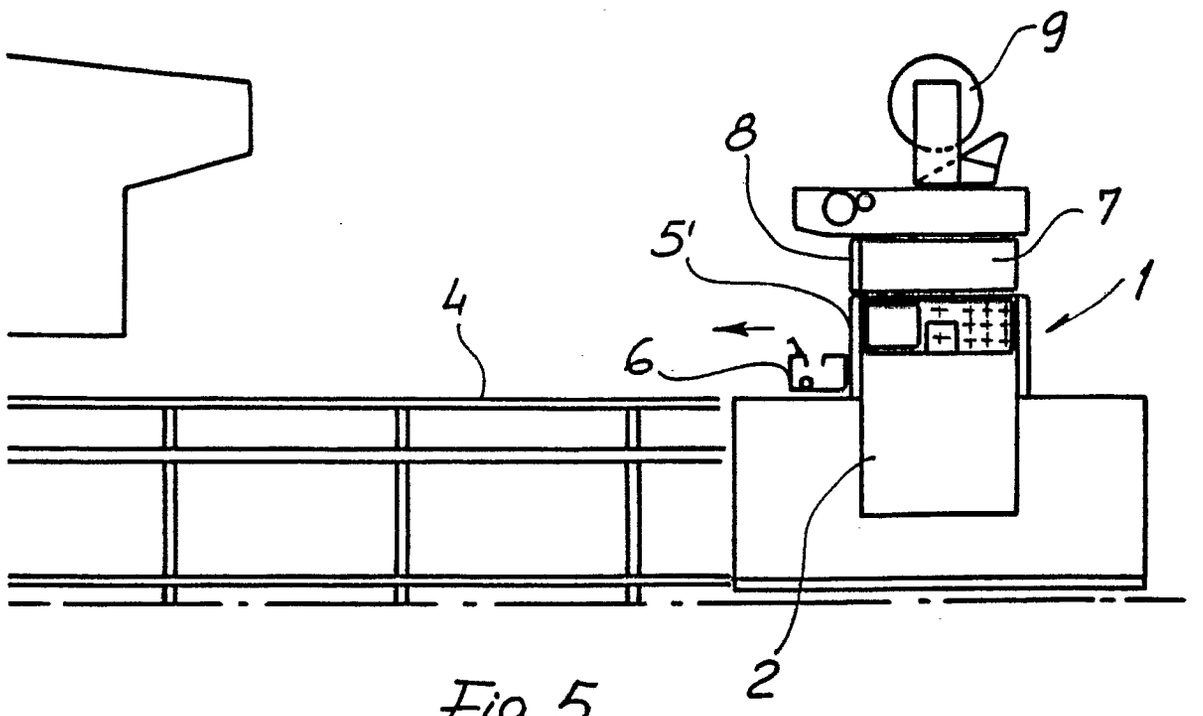

Fig. 5