PATENT SPECIFICATION

Convention Date (Italy): Sept. 9, 1922. **203,696**

Application Date (in United Kingdom): Sept. 5, 1923. No. 22,356/23.

Complete Accepted: May 1, 1924.

COMPLETE SPECIFICATION.

Improvements in or relating to Brakes.

We, LANCIA & C., of 99, Via Monginevro, Turin, Italy, an Italian company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in expansion brakes of the type in which the shoes are carried by pivoted sectors which are forced against the brake drum by a controlling device which acts on the ends of the sectors so as to move them apart.

According to the present invention in a brake of this type, the controlling device acts on the front surfaces of two projections which are not opposite to one another and which are provided on the free ends of the brake sectors, while members of the controlling device strike against the inner sides of the said projections when the end position of the controlling device corresponds to the neutral position of the brake.

The controlling device is preferably provided in known manner, with rollers to act on the said projections of the adjacent ends of the brake sectors.

Owing to the above indicated arrangement the controlling device may be stopped in a position in which it acts with maximum force to move apart from one another the two end projections of the sectors, as the said projections move substantially in the same direction as do the members of the controlling device on which they rest.

In the accompanying drawing is illustrated, by way of example, an embodiment of the invention.

Figure 1 is a side view, with parts in section, of a brake gear provided with a controlling device according to this invention.

Figure 2 shows the apparatus on a larger scale and in section along a plane passing through the axis of rotation of the drum, and

Figure 3 shows a rotatable operating member in section along X—X in Figure 2.

As shown in Figure 1, arms 1 pivoted at 2 and carrying shoes 3 adapted to engage a brake drum 4, are actuated, as usual, by a lever 5 solid with a member adapted to act on the opposite ends of the arms 1 which are drawn together by a spring 6. Said member solid with the lever 5 comprises a pivot 7 mounted to rotate, for example on ball bearings 8, in a support 9 provided in the stationary portion of the brake, and a part 10 which is located between the opposite ends of the arms 1.

The part 10 carries at points diametrically opposite to each other with respect to its axis of rotation and corresponding with the two half portions of the arms 1, two pivots 11 on each of which is located a sleeve 12 adapted to bear against the end of one of said arms 1.

The opposite ends of the two arms have the shape shown in Figure 2, that is each is provided with a projection 1^1 staggered with respect to a similar projection on the end of the other arm, said projections being thus located at the two sides of a plane passing through the axis of rotation of the part 10.

Said part 10 has two further arms 13 which in the end position of the released brake bear against the sides of the projections 1^1 and thus provided for stopping the brake gear.

In the position of the parts shown in Figure 2 the brake is open and the arms 13 bear on the sides of the projections 1^1 thus keeping the lever 5 in its end position. To apply the brake the lever 5 is moved in the direction of the arrow in Figure 2 and then the rotation of the

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part 10 causes the sleeves 12 to press on the projections 1^1 and thus move apart the arms 1. The sleeves 12 move through the arc of a circle having substantially the same direction as the movement of the projections 1^1 of the two sectors, and the sleeves 12 roll on the front surfaces of the said projections 1^1, so that the action of the brake is as strong as possible with a given stress, the whole action exerted on the lever 5 being utilised to move apart the sectors, and the friction being reduced to a minimum.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. An expansion brake having shoes carried by pivoted sectors the opposite ends of which are operated by a controlling device, characterised in that the controlling device acts on the front surfaces of two projections provided on the free ends of the brake sectors and not arranged opposite to one another, while members of the controlling device strike against the inner sides of the said projections when the end position of the said controlling device corresponds to the neutral position of the brake.

2. An expansion brake substantially as described or substantially as illustrated in the accompanying drawing.

Dated this 5th day of September, 1923.

LANCIA & C.,
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E.C. 1,
Chartered Patent Agents.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1924.

[This Drawing is a reproduction of the Original on a reduced scale]

FIG

FIG. 1

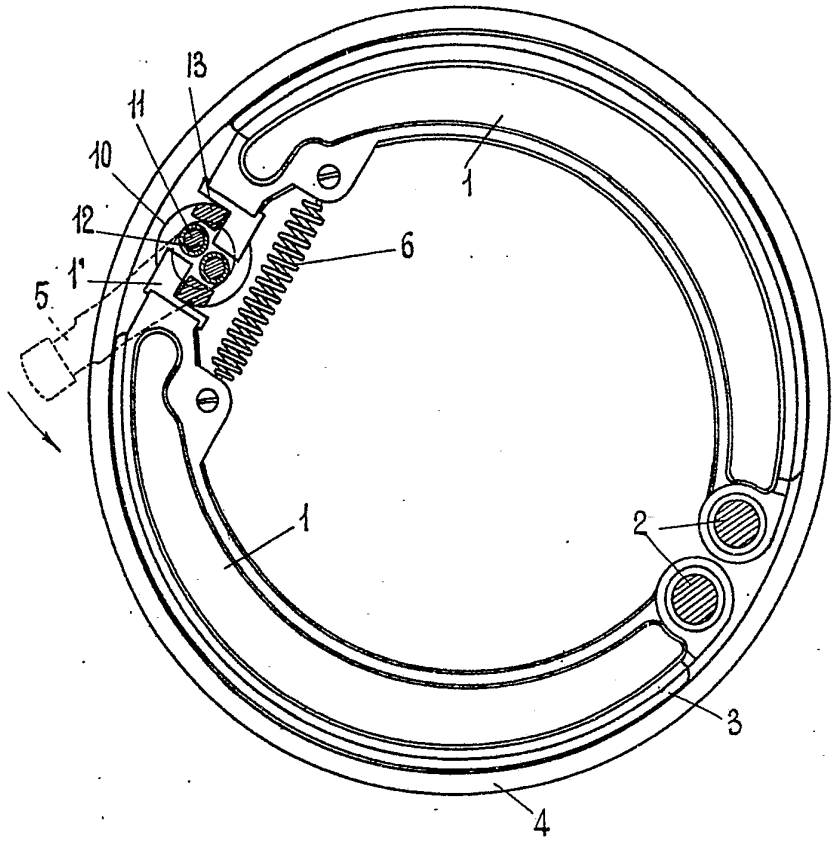
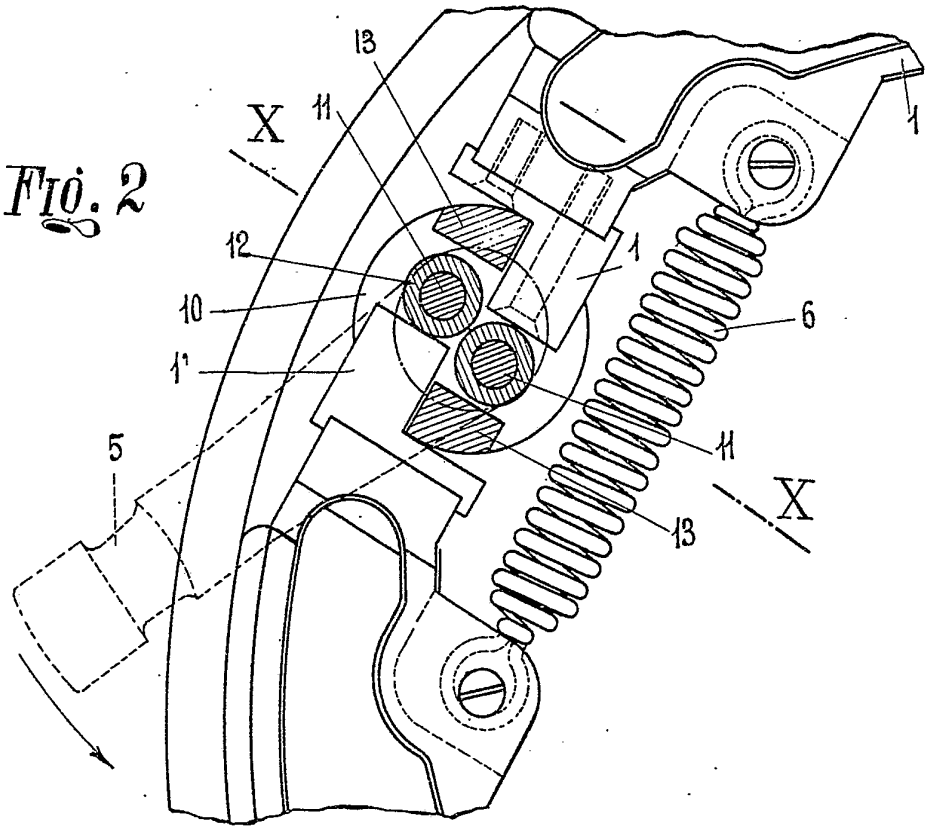


FIG. 3

FIG. 2



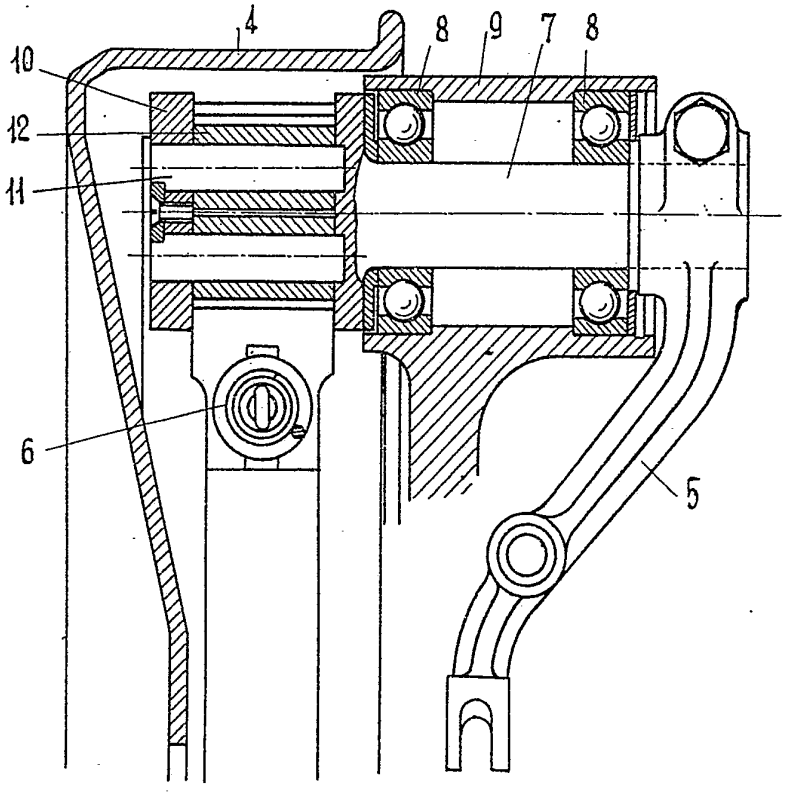


FIG. 3

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FIG. 1

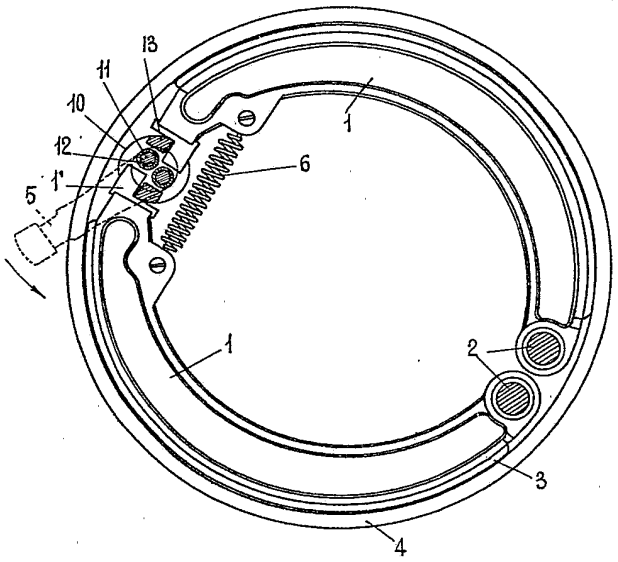


FIG. 2

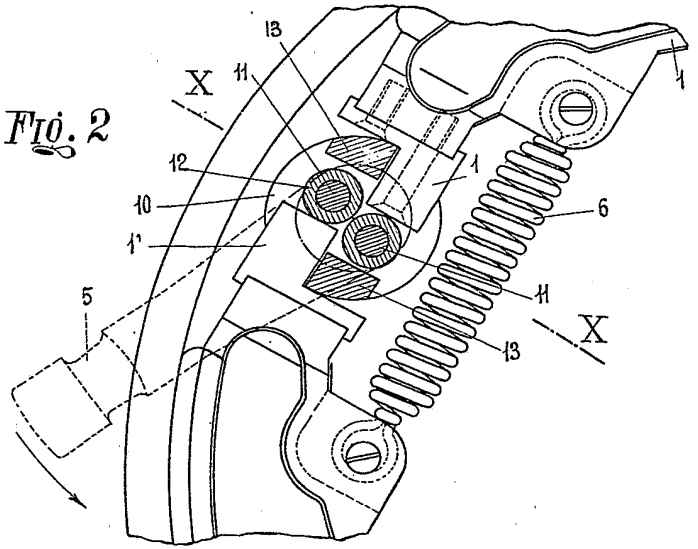
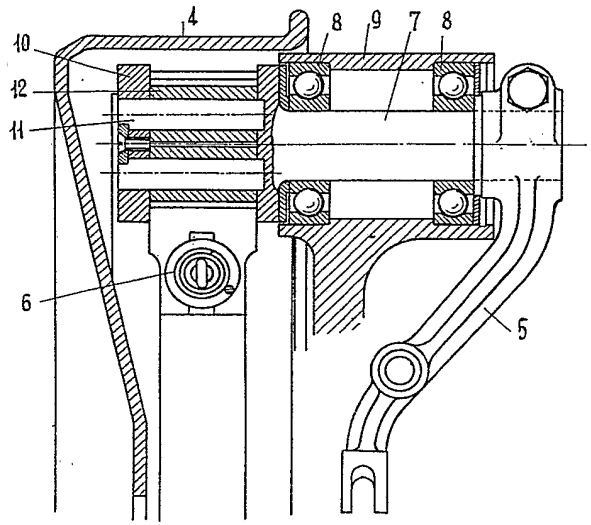


FIG. 3



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