662596

P/00/008 28/5/91
Section 29(1)
Regulation 3.2(2)

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Patents Act 1990

NOTICE OF ENTITLEMENT

Azkoyen Industrial SA being the applicant/Nominated Person in respect of the Application No. 35490/93 state the following :

The Nominated Person is entitled to the grant of the patent because the Nominated Person derives title to the invention from the inventors, Jesus Echapare Ibarrola and Jose Luis Insausti by assignment.

The Nominated Person is entitled to claim priority from the basic application listed on the patent request because the Nominated Person is the assignee of the applicant in respect of the basic application and because the basic application was the first application made in a Convention country in respect of the invention.

Dated this 23rd day of June, 1995

.....

a member of the firm of
DAVIES COLLISON CAVE
for and on behalf of
the applicant(s).

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DEVICE FOR OBTAINING THE MECHANICAL CHARACTERISTICS OF COINS

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(56) Prior Art Documents
AU 83953/91 G07F 3/02

(57) Claim

1. A coin selector device for obtaining the mechanical characteristics of coins, the device comprising:

a cavity which defines an encasement for receiving a flexible beam that defines a path for a rolling coin,

the beam being deformed by the coin as it rolls along the beam with the device measuring the deformation of the beam caused by the coin;

the beam including an elongated strip of material having first and second opposite ends and a length which is greater than a width of said strip, the first end having a widened portion which extends laterally from the strip towards one side thereof, and a notch portion which extends into the strip from an opposite side thereof so as to be adjacent said widened portion; and

wherein the elongated strip is positioned in the cavity of the device so that a portion of the strip projects from the device in cantilever fashion to receive a rolling coin, said cantilever portion of the strip being inclined laterally and longitudinally, and the widened portion of said strip being received in the encasement with an anvil member being fixed to the device so as to extend into the notch to force the widened portion of said strip toward the encasement.

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Regulation 3:2

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ORIGINAL
COMPLETE SPECIFICATION
STANDARD PATENT

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Invention Title: Device for obtaining the mechanical characteristics of coins

The following statement is a full description of this invention, including the best method of performing it known to me:-

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DEVICE FOR OBTAINING THE MECHANICAL CHARACTERISTICS OF COINS

This invention refers to a device for obtaining the mechanical characteristics of coins, whose mechanism is intended for applying to the coin selectors or verifiers utilised in machines which function by way of the introduction of one or more coins.

According to the present invention there is provided a coin selector device for obtaining the mechanical characteristics of coins, the device comprising a cavity which defines an encasement for receiving a flexible beam that defines a path for a rolling coin, the beam being deformed by the coin as it rolls along the beam with the device measuring the deformation of the beam caused by the coin, the beam including an elongated strip of material having first and second opposite ends and a length which is greater than a width of said strip, the first end having a widened portion which extends laterally from the strip towards one side thereof, and a notch portion which extends into the strip from an opposite side thereof so as to be adjacent said widened portion, and wherein the elongated strip is positioned in the cavity of the device so that a portion of the strip projects from the device in cantilever fashion to receive a rolling coin, said cantilever portion of the strip being inclined laterally and longitudinally, and the widened portion of said strip being received in the encasement with an anvil member being fixed to the device so as to extend into the notch to force the widened portion of said strip toward the encasement.

Preferably the strip is formed of a flexible piece of steel.

Preferably the strip has a rectangular configuration and the widened portion in the notch extend from the first toward the second end. The widened portion preferably extends a greater distance toward the second end so as to have a greater length than the notch.

Preferably the second end of the strip has minor widened portion which is smaller than the widened portion and is received in the cavity of the device.

Preferred embodiments of the invention will hereinafter be described with reference to the following drawing in which

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Figure 1 is a perspective, view of the internal surface of the gate of a coin selector. In this gate is mounted part 1 which defines a flexible elastic beam on which the introduced coins will roll in the selector, thereby deforming this beam in accordance with the weight of the coin and its position at each moment.

Piece 1, as can be seen in Figures 6 and 7, is comprised of a rectangular strip of natural steel having a substantial length in respect to its width. In one of the longitudinal edges of strip 1, starting from the transverse border 2, an end notch 3 is formed. Starting from the transverse border 2 alo ıg the opposite longitudinal edge a widened portion 4 is formed so as to be lo-planar with the strip 1. The opposite end the strip presents a minor laterally widened portion 5.

The selector gate, as can be appreciated in Figures 1 and 2, has a cavity 6 which is conformed to define an adjusted encasement which receives the widened portion 4 of the strip 1. This cavity 6 is of greater height than the thickness of strip 1 but is limited by end tracks 7 of a height coinciding with the thickness of the strip 1, such that the widened portion 4 of the strip remains flush and fixed exactly between the narrowing ends 7. As can be appreciated in Figure 5, the strip 1 stays against the bottom of the cavity 6.

The end notch 3 remains directed towards the exterior of the device, and against same rests an anvil 8, consisting of a metallic piece which is fixed to the gate, for example with a screw 9. The anvil 8 rests on the outer edge of the undercut or notch 3, pushing the widened portion 4 towards the encasement 6.

With this assembly, the strip or beam 1 is oriented in cantilever fashion so as to be elastically deformed by the weight of the coin as a function of the position occupied in each moment by said coin on the beam.

The minor widened portion 5 stays in a second cavity 10 formed in the selector which cavity also has a longitudinal groove 11 in accord with the strip 1.

The maximum deformation magnitude or displacement of the cantilevered strip 1 remains limited by the edges of the second cavity 10 and by the top of lower member 12 (Figure 3).

Figure 3 shows how the minor widened portion 5 slightly penetrates the slot 10. Figure 4 shows how the strip 1 lays parallel to the groove 11, without penetrating it.

Strip 1, as can be appreciated in the drawings, is oriented in cantilever fashion

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with a slight descending inclination in the longitudinal and transversal directions, in order to facilitate the rolling of the coins and the positioning of the same.

With the described assembly system, the strip or flexible elastic beam 1 adopts at all moments to the correct position, due to the action of the anvil 8 on the undercut 3 of said strip, without producing a deviation during any possible maintenance manipulations, for example to remove jammed coins.

It is apparent that the invention provides a piece or flexible elastic beam of simple geometry, whose assembly in the selector device is also effected in a simple manner, it being sufficient to merely introduce the laterally widened portion 4 in the corresponding encasement 6 and later place the anvil 8 that is fixed thereagainst by means of a screw 9.

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The claims defining the invention are as follows:

1. A coin selector device for obtaining the mechanical characteristics of coins, the device comprising:

a cavity which defines an encasement for receiving a flexible beam that defines a path for a rolling coin,

the beam being deformed by the coin as it rolls along the beam with the device measuring the deformation of the beam caused by the coin;

the beam including an elongated strip of material having first and second opposite ends and a length which is greater than a width of said strip, the first end having a widened portion which extends laterally from the strip towards one side thereof, and a notch portion which extends into the strip from an opposite side thereof so as to be adjacent said widened portion; and

wherein the elongated strip is positioned in the cavity of the device so that a portion of the strip projects from the device in cantilever fashion to receive a rolling coin, said cantilever portion of the strip being inclined laterally and longitudinally, and the widened portion of said strip being received in the encasement with an anvil member being fixed to the device so as to extend into the notch to force the widened portion of said strip toward the encasement.

2. A coin selector device according to claim 1, wherein the strip is formed of a flexible piece of steel.

3. A coin selector device according to claim 1, wherein the strip has a rectangular configuration, and said widened portion and said notch extend from the first end toward the second end, said widened portion extending a greater distance toward said second end so as to have a greater length than said notch.

4. A coin selector device according to claim 3, wherein the second end of the strip has a minor widened portion which is smaller than said widened portion and is received in the cavity of the device.

5. A coin selector device substantially as hereinbefore described with reference to the accompanying drawings.

DATED this 31st day of MAY 1995

AZKOYEN INDUSTRIAL S.A.
By Its Patent Attorneys
DAVIES COLLISON CAVE

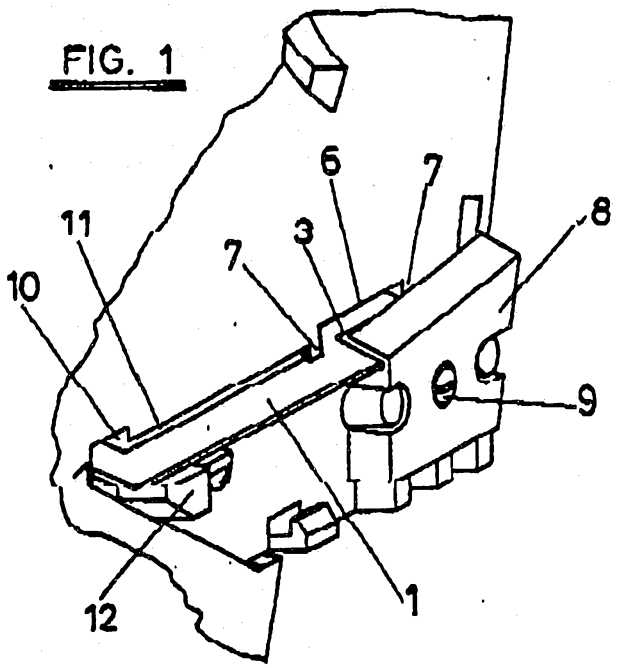
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SUMMARY

" Device for the obtaining of mechanical characteristics of coins", composed of a beam (1) that is embedded by at least one of its ends (2) and a flexible elastic by its displacement of coins through the length of the same. This beam (1) consist of an elongated plain strip of natural steel, with a lateral widening (4) at one of its extreme portions, which is introduced in an adjusted manner into a cavity encasement (6) formed in the selector, with said widening (4) remaining exteriorly retained by an anvil (8) that is fixed to the selector and pressured on the strip (1) towards the encasement, descanting the same in projecting with a certain longitudinal and transversal inclination.

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FIG. 1



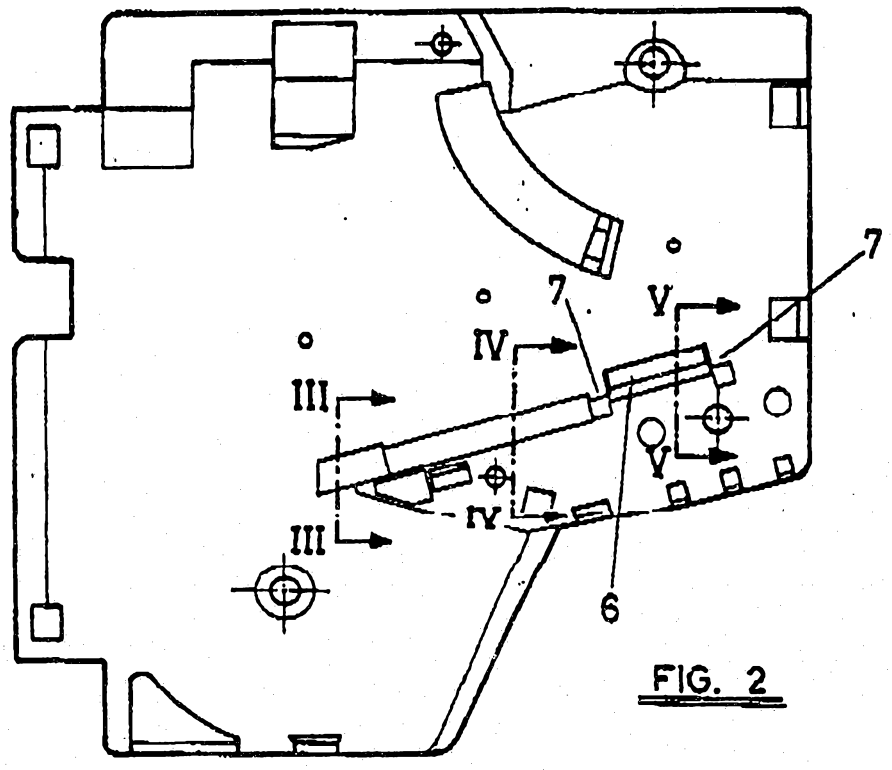


FIG. 2

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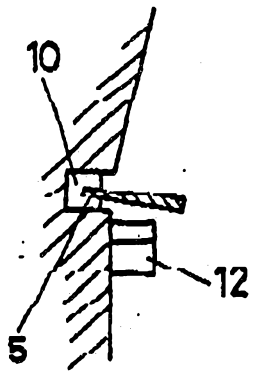


FIG. 3

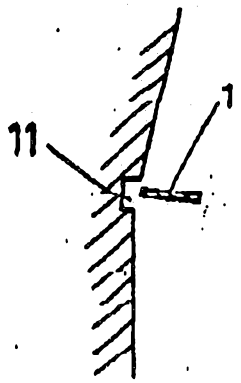


FIG. 4

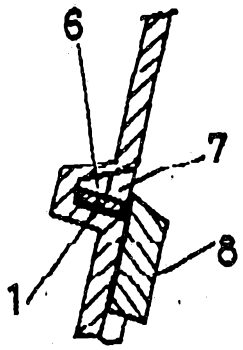


FIG. 5

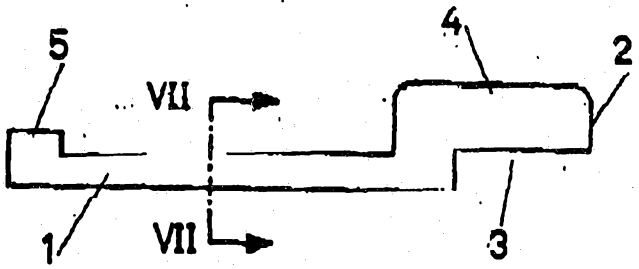


FIG. 6

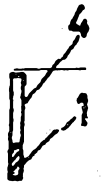


FIG. 7