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(54) Device for holding bricks or blocks of concrete

(57) Device to carry construction material, which consists of two parts rotatably connected by means of a mobile axis (18), a first part (A) consisting of a basically square angle plate (6) one face of which is fixed to an end of a bar (4) and a second part (B) consisting of a second basically square angle plate (16) one face of

which is fixed to a control handle (12) through means (14,15) adapted to be rotatably connected to said bar (4); said rotation being allowed on a plane which is common to said handle (12) and said bar (4), and said plates (6,16) presenting their concave parts facing each other when the two walls of the device are joined by means of said axis (18).

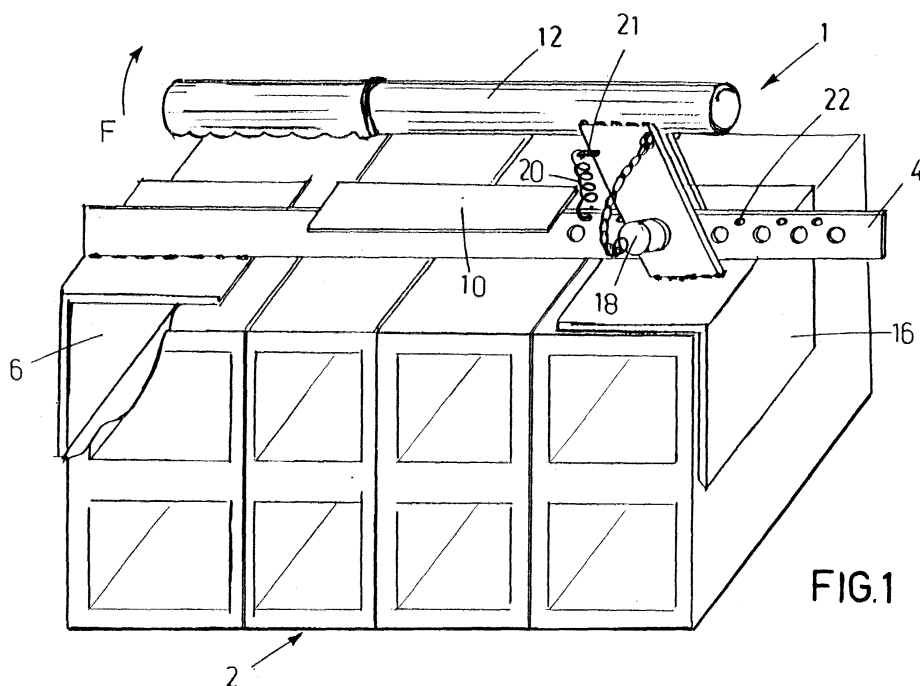


FIG.1

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Description

[0001] The present invention refers to a device intended to easily collect and transport bricks or blocks of concrete.

[0002] Manufacturers generally supply bricks wrapped in plastic sheets and placed in blocks on a bed in order to make it easy to transport them. After opening the packaging (plastic sheet), masons and labourers take each brick to the scaffolding or to the place where they are to be used.

[0003] Transportation of each brick is generally made manually, by piling a certain number of bricks on the arm or in special baskets or buckets used to transport mortar of cement.

[0004] It is an object of the present invention to provide a device that allows to easily carry a certain amount of bricks, not too many yet a considerable number of them, by picking them directly from the bed, without having to handle them.

[0005] Said object is achieved by means of a device adapted to carry construction material, said device being characterised by what is set forth in claim 1.

[0006] Additional characteristics and advantages will become clear by the following description referring to the appended drawings, provided as non-restrictive example, and in which:

figure 1 shows the device according to the invention together with four sketched bricks, and
figure 2 is a view of the two separate parts of the device.

[0007] With reference to the figures, reference number 1 indicates a metal device intended to lift and carry a set 2 of bricks (four bricks in figure 1) or at least a pair of blocks of concrete (not shown).

[0008] The device consists of a first part indicated by A in figure 2, made of a bar 4, the section of which has the shape of a rectangular parallelepiped. At one of the shorter sides of an end 5 of said bar 4 there is fixed the face of a plate 6 which is basically bent at a square angle. In the case shown, the fixing is achieved by means of welding since the component material is metal. The component material can of course be chosen among those which are adapted for the purpose, without going beyond the scope of the invention. The bar 4 is provided with a series of through holes 8 which extend, by predetermined intervals, from its central part till the end 9 without the bent plate. At the central part of the bar 4, on the shorter side opposite to the one facing the bent plate 6, there is welded a flat plane 10 which serves as a support and extends till the height of the first of the through holes 8. The inner wall of the bent plate 6 can be adequately lined with antislip material 11, rubber for example (fig.2).

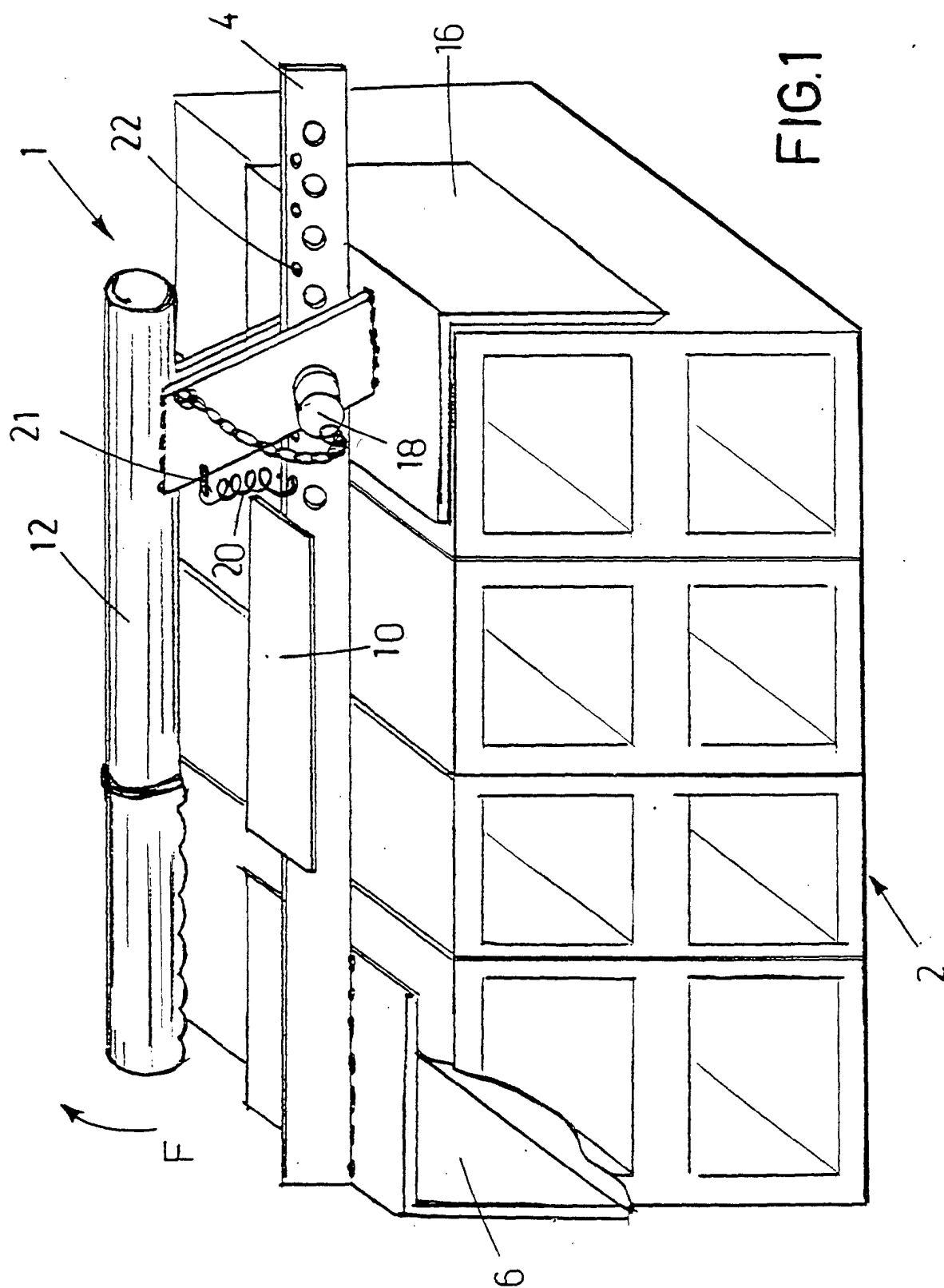
[0009] The second part B of the tool 1 consists of a tubular handle 12 provided with a handle 13, preferably

made of plastic material, to which the face of a second plate basically bent to a square angle 16, is rigidly connected by means of two small plates 14 and 15 facing each other and perpendicular to it. It is obvious that in the case the device is made of plastic the plastic handle is superfluous. The inner wall of this second bent plate 16 too can be provided with an antislip material 11. The small plates 14 and 15 are located at a distance allowing the bar 4 to pass between them, when the two component parts A and B are assembled. Besides, the small plates 14 and 15 are provided with a through hole where a pivot 18 can be inserted, its diameter being adapted to pass also through the holes 8 of the bar 4, so that it can serve as a pivot for the part B rotating on the part A, when the tool is being used. The length of the outline of said plates can be varied, yet keeping the square angle bending, so that it is possible to pick different construction materials such as tiles. In order to make the use of the device easier, a traction spring 20 can be placed between the component parts A and B, being connected, for instance, between one of the two small plates 14 and 15 by means of a ring 21 and the bar 4, by means of through holes 22. The spring 20 keeps the handle 12 pulled against the bar 4, so that the two bent plates 6 and 16 are kept in their open position, in order to make it easier to insert them in bricks or block of concrete. When the device is mounted, the concave faces of the bent plates 6 and 16 are facing each other, so that they surround the upper external edges of the bricks located at one end of a series of brick lying the one next to the other on the same support plane, as shown in figure 1. Once the tool 1 is placed in the position described above and shown in figure 1, it will be enough to lift the device itself by pulling the handle 12 in the direction indicated by arrow F to make the associated plate 16 rotate against the side of the adjacent brick, so that all the bricks are compressed the one against the other and all of them against the plate 6. It is therefore by taking advantage of the friction force thus created that it is possible to lift all the bricks together and carry them easily to the desired place. The same can be obviously done with blocks of mortar of cement or with any other geometrical body of proper size that can be carried in the way described above. The axis of rotation of the part B on the part A consists, in the example here shown, of a simple pivot 18 which is held by a small chain 19 intended to prevent it from being lost. In a particular embodiment of the invention, it is possible to use a pivot controlled by a spring system of the known type, for instance of the type which is sometimes used to lock the telescopic posts into their open position. This is to make it easier to move and fix the part B into the different through holes of the bar 4 of the part A, in order to adjust the length of the tool and adapt it to the different loads it has to lift. The position of the holes 8 will be calculated in order to satisfy any possible transport requirements. Thus there will be an adjustment position to lift a pair of blocks of mortar of cement or concrete, a position for

five bricks, and so on...

Claims

1. Device to carry construction material, and more in particular sets of bricks or block of concrete or mortar for cement, **characterised in that** it consists of two parts rotatably connected by means of a mobile axis (18), a first part (A) consisting of a basically square angle plate one face of which is fixed to an end of a bar (4) and a second part (B) consisting of a second basically square angle plate (16) one face of which is fixed to a control handle through means (14, 15) adapted to be rotatably connected to said bar (4); said rotation being allowed on a plane which is common to said handle and said bar, and said plates presenting their concave parts facing each other when the two walls of the device are joined by means of said axis (18). 5 10 15 20
2. Device as claimed in claim 1, **characterised in that** the bar (4) presents a rectangular parallelepiped transversal section and that said plate (6) is fixed on one of its shorter sides. 25
3. Device as claimed in claim 1, **characterised in that** the end of the bar (4) which is not fixed to the bent plate (6) is provided with a series of through holes (8) starting from the central part of said bar (4). 30
4. Device as claimed in claim 1, **characterised in that** the bar (4) is provided in its central part of a stiffening plate (10). 35
5. Device as claimed in claim 1, **characterised in that** the means connecting the second plate (16) to the handle (12) consist of two small plates (14, 15) facing each other and placed perpendicularly to the second plate (16) and spaced in order to let said bar (4) pass between them. 40
6. Device as claimed in claim 1, **characterised in that** the small plates (14, 15) are provided with through holes to allow the insertion of said axis of rotation (18). 45
7. Device as claimed in claim 1, **characterised in that** the axis of rotation consists of a mobile pivot (18) adapted to be inserted into through holes (8) made on the bar (4) and on the small plates (14, 15). 50
8. Device as claimed in claim 1 and 7, **characterised in that** the pivot (18) is controlled by a spring. 55
9. Device as claimed in claim 1, **characterised in that** the concave wall of the bent plates is lined with antislip material (11).
10. Device as claimed in claim 1, **characterised in that** the two component parts (A, B) of the device are connected by means of a traction spring (20) adapted to keep the bent plates (6, 16) in the open position.



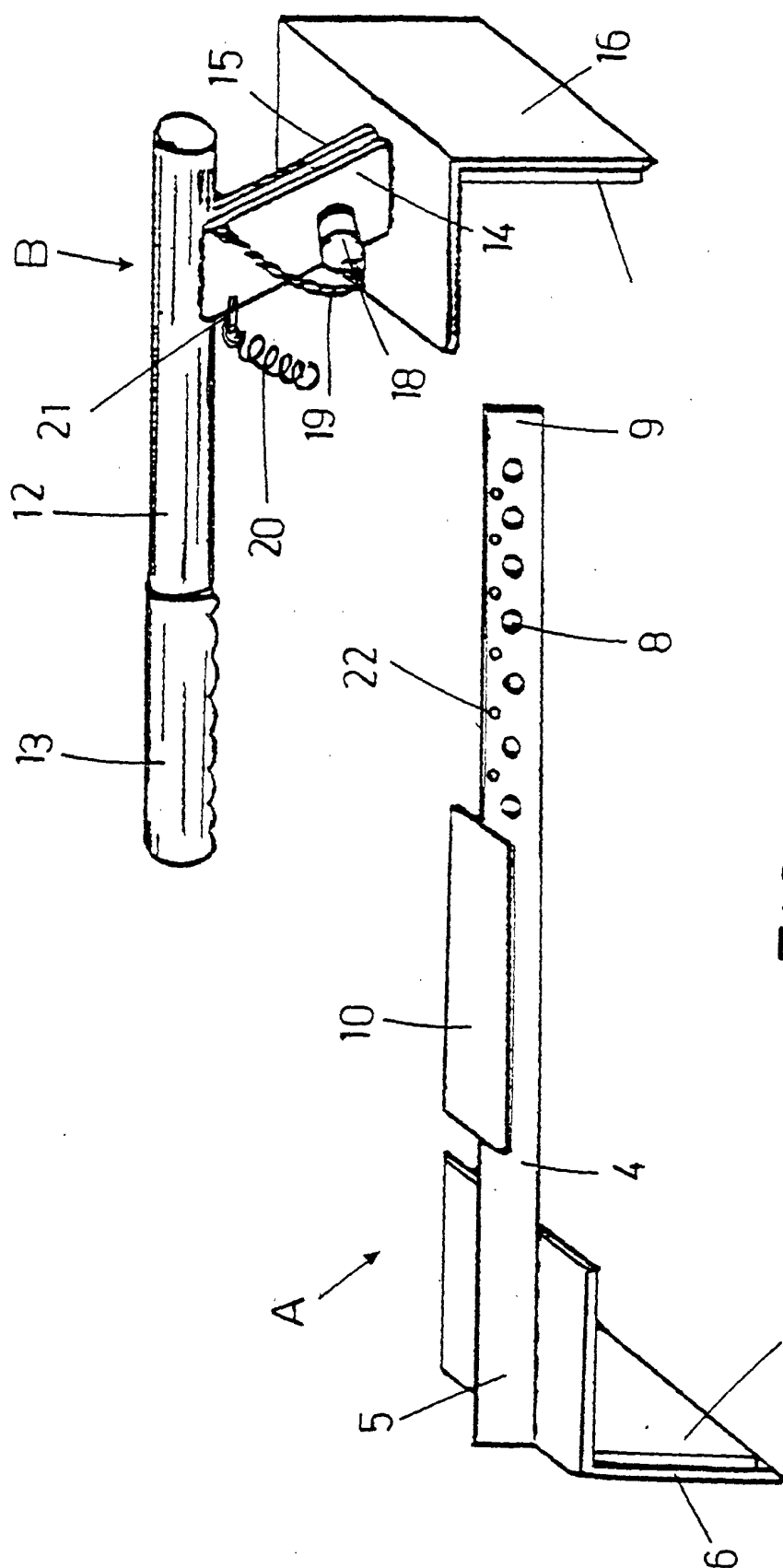


FIG. 2