ORIGINAL

ABSTRACT

ADJUSTABLE FLOW RATE BEAD DISPENSER

A bead dispenser 10 for use with a line striper controls the amount of beads being dispensed onto a thermal (or other) stripe or marking, minimizing waste by not dropping excessive beads. The bead box 12 is capable of dropping six to ten pounds of beads per one hundred square feet. An adjustable lever 14 with a spring plunger 16 allows the user to choose the glass bead flow rate by simply moving adjuster to one of four settings 18. The adjustable lever 14 is attached to an offset shaft 20 that applies tension to the polyurethane flap 22 when rotated.

I/WE CLAIM:

1. A bead dispenser for use with a line striper, said bead dispenser comprising:

a bead box having a bottom with an opening therein;

a flexible flap in said bottom for selectively occluding said opening;

an offset shaft rotatably mounted on said box adjacent said flap; and

an adjustable lever attached to said shaft to allow rotation of said shaft to vary the pressure of said shaft on said flap in order to vary the flow rate of beads through said opening.

2. The bead dispenser of claim 1 wherein said lever comprises a spring plunger and a plurality of settings which allows the user to choose the glass bead flow rate by moving said lever.

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To,
The Controller of Patents
The Patent Office at **New Delhi**

Applicant(s) Name: **GRACO MINNESOTA INC.**
Application No.:_____/_____/2012

Sheet No.: 1
Total No. of Sheets: 8

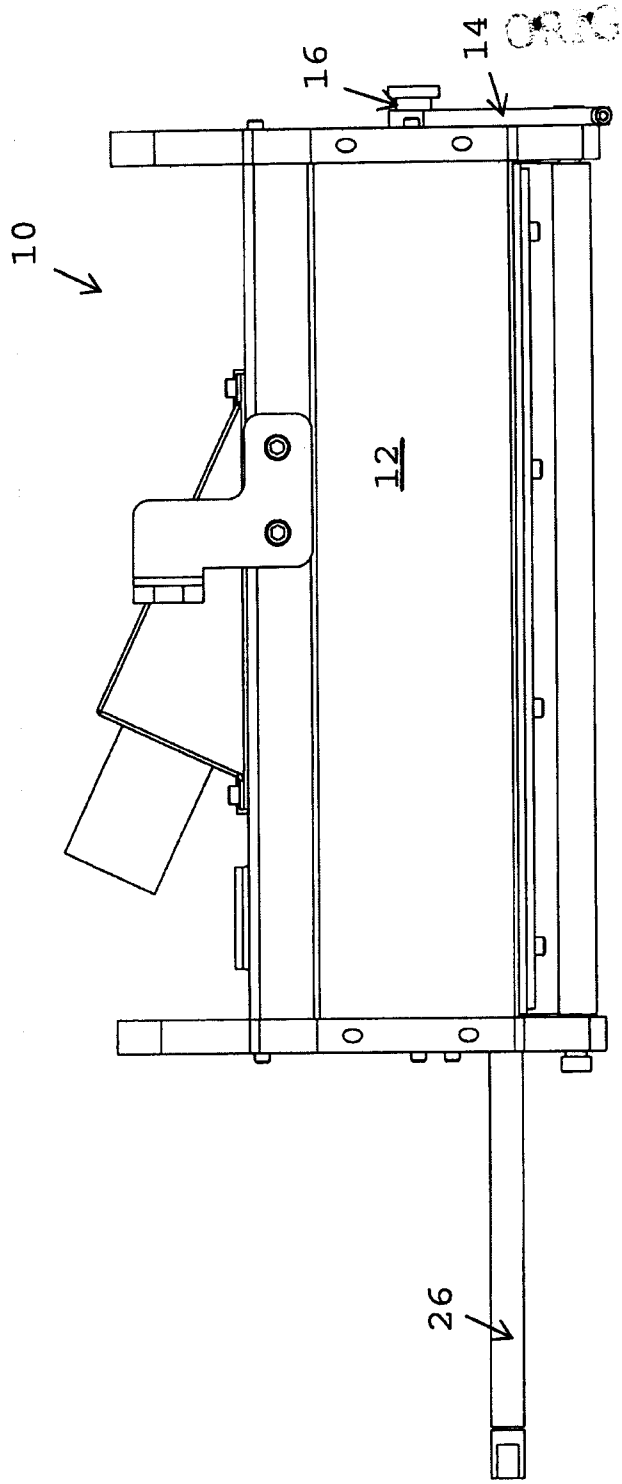

FIG. 1

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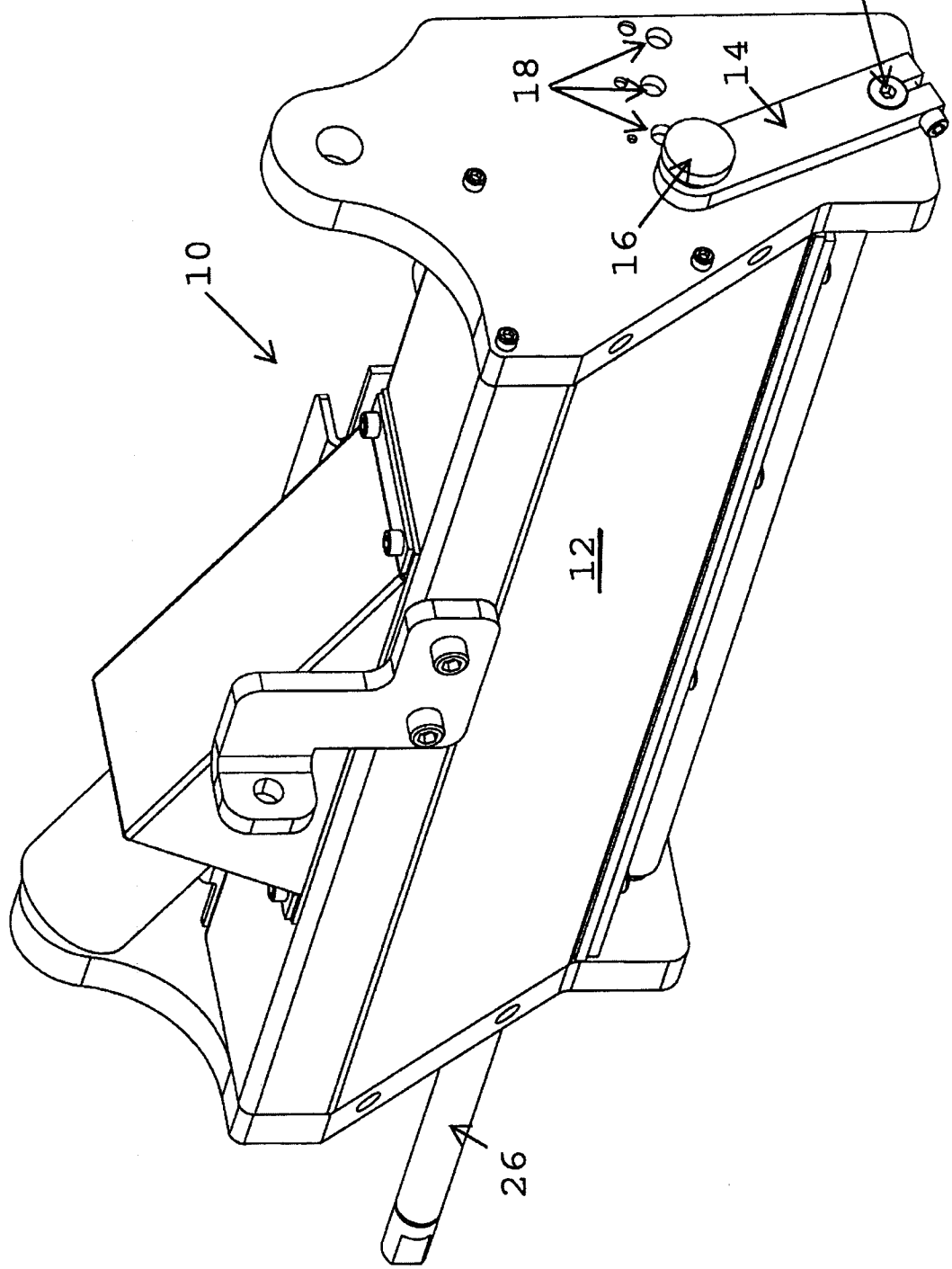

FIG. 2

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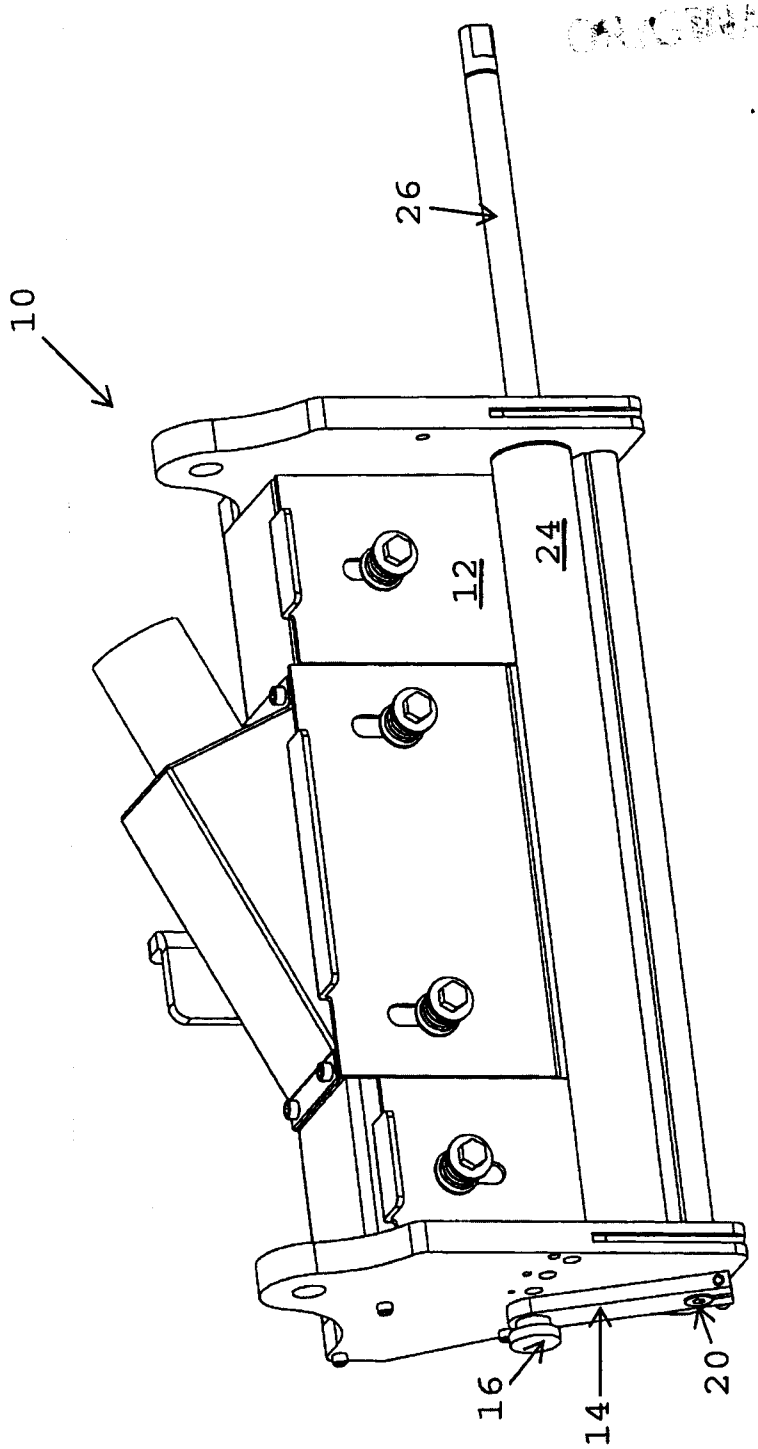

FIG. 3

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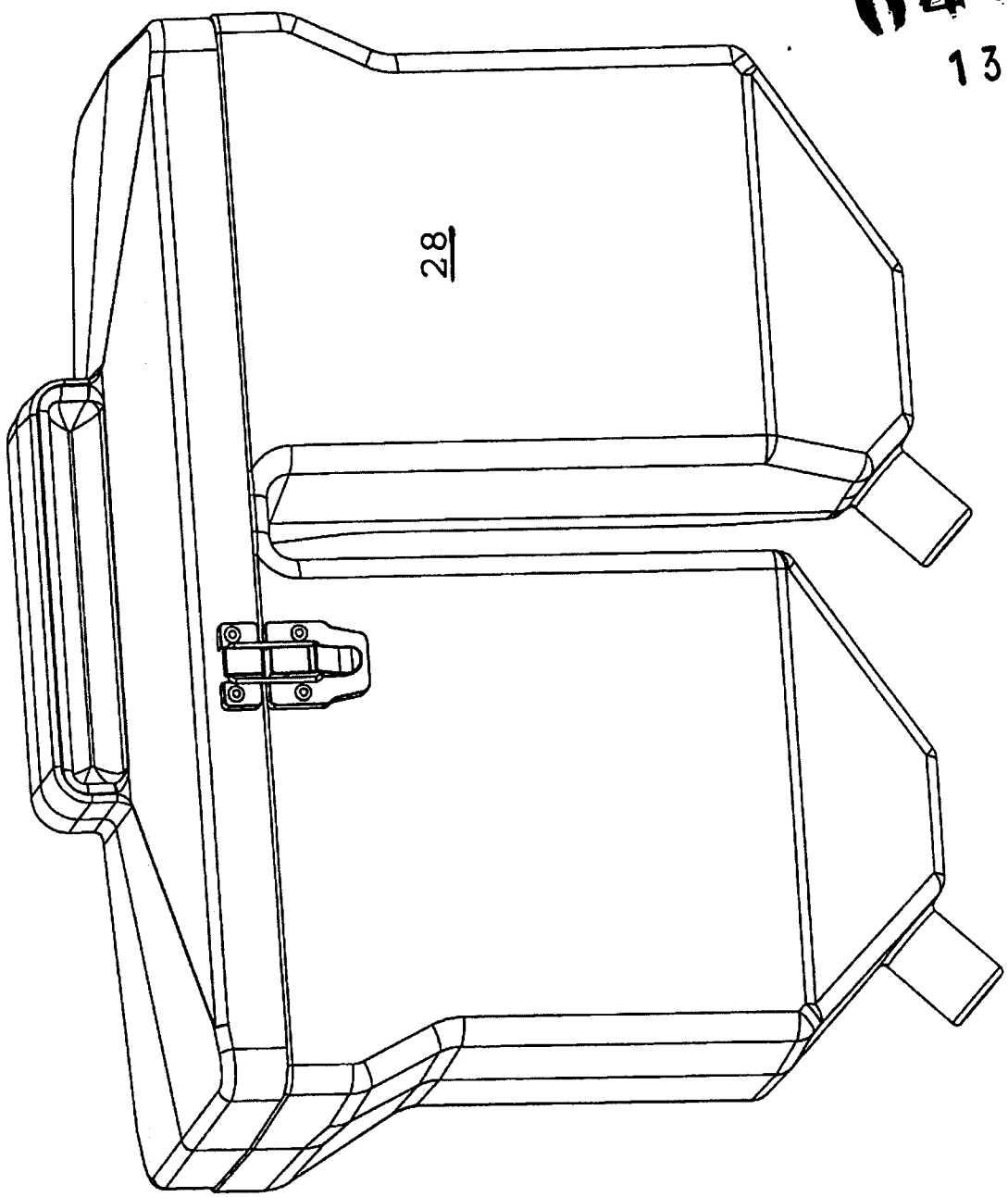

FIG. 4

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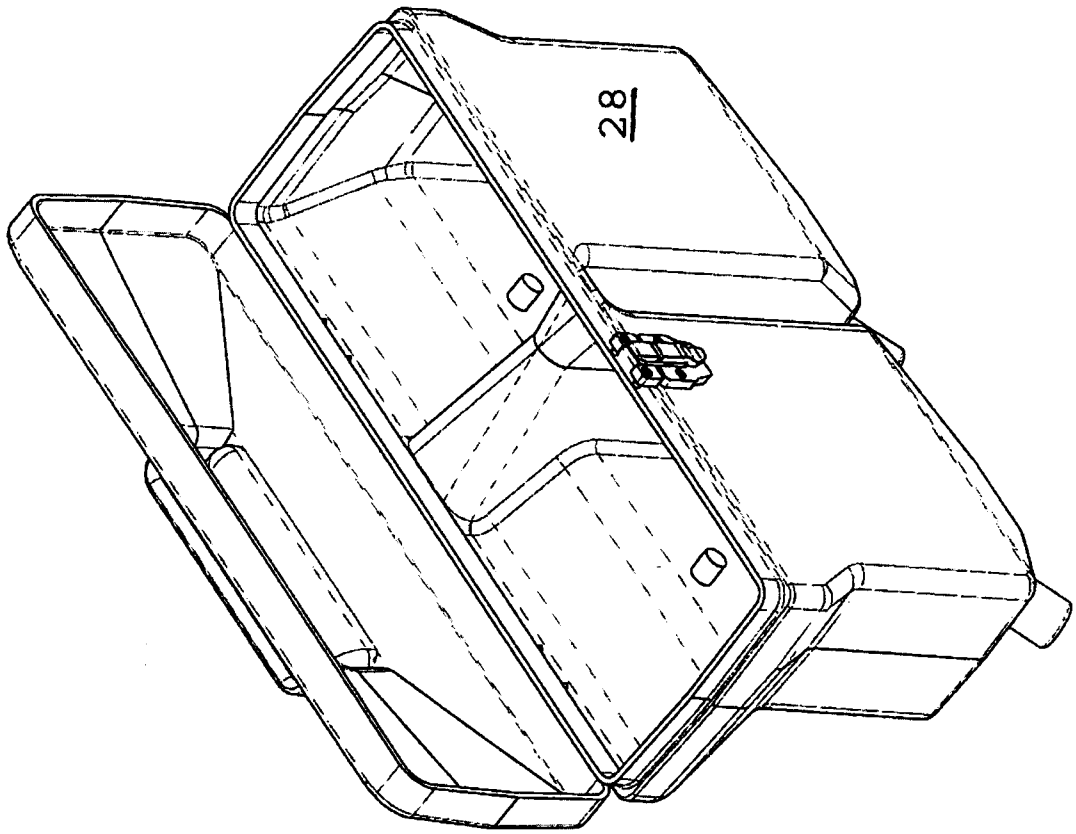

FIG. 5

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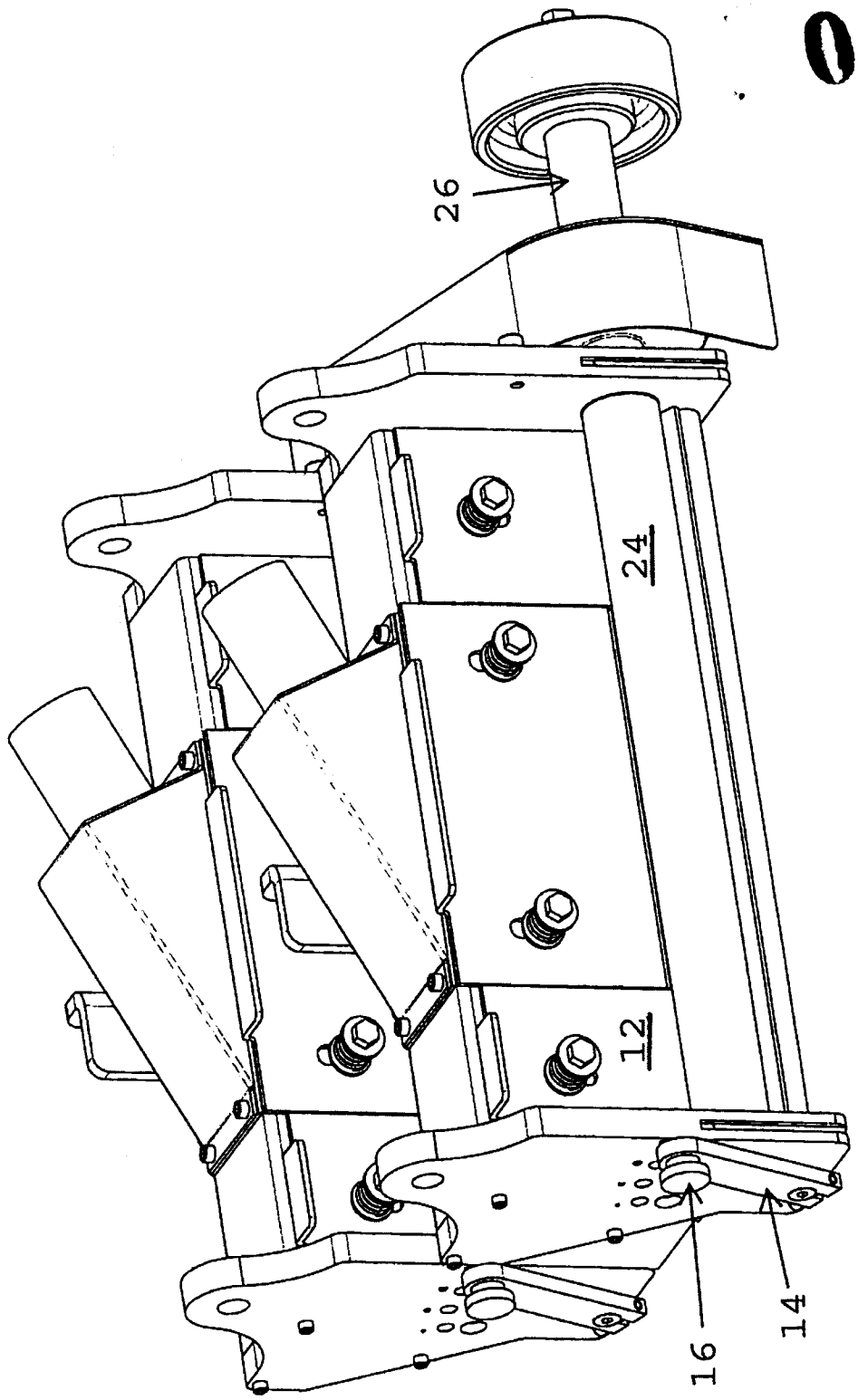

FIG. 6

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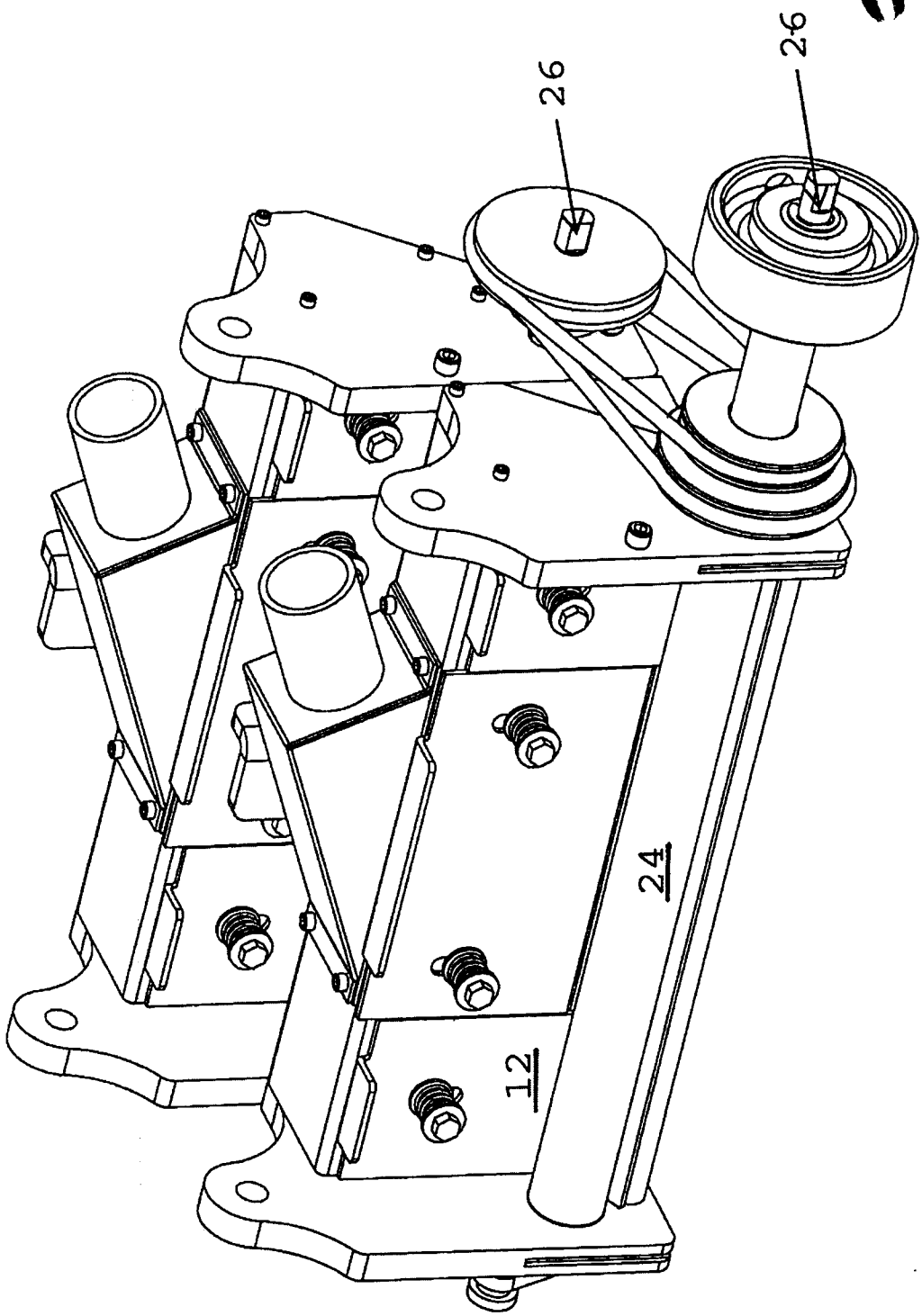

FIG. 7

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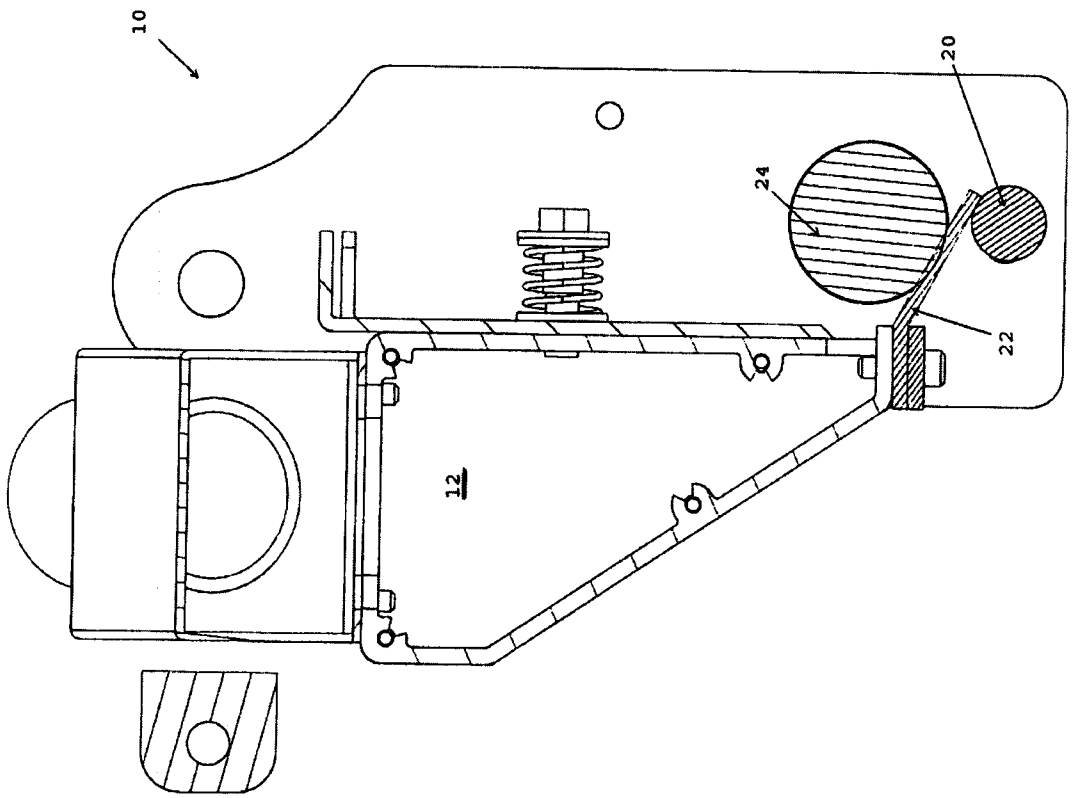

FIG. 8

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TECHNICAL FIELD

This application claims the benefit of US Application serial numbers 61/228,679, filed July 27, 2009 and 61/228,679 filed August 20, 2009, the contents of which are hereby incorporated by reference.

BACKGROUND ART

Devices for applying thermal markings and striping to roadways and the like are well known.

DISCLOSURE OF THE INVENTION

This invention controls the amount of beads being dispensed onto a thermal (or other) stripe or marking, minimizing waste by not dropping excessive beads. The bead box is capable of dropping six to ten pounds of beads per one hundred square feet.

An adjustable lever with a spring plunger allows the user to choose the glass bead flow rate by simply moving adjuster to one of four settings. The adjustable lever is attached to an offset shaft that applies tension to the polyurethane flap when rotated. The more tension applied, the less beads dropped. There are four settings the user can choose from to fine tune the amount of beads being dropped from six to ten pounds per one hundred square feet.

This feature allows user to adjust glass bead flow rate depending on job application which determines bead size and usage of beads. This design minimizes waste by controlling bead flow.

These and other objects and advantages of the invention will appear more fully from the following description made in conjunction with the accompanying drawings wherein like reference characters refer to the same or similar parts throughout the several views.

BRIEF DESCRIPTION OF DRAWINGS

Figure 1 shows an external view of the bead dispenser of the instant invention.

Figure 2 shows the adjustment mechanism of the bead dispenser of the instant invention.

Figure 3 shows the other side of the bead dispenser of the instant invention.

Figure 4 shows the double bead hopper of the instant invention.

Figure 5 shows the open bead hopper of the bead dispenser of the instant invention.

Figure 6 shows the double embodiment of the bead dispenser of the instant invention.

Figure 7 shows the other side of the double embodiment of the bead dispenser of the instant invention.

Figure 8 shows a cross-section of the bead dispenser.

BEST MODE FOR CARRYING OUT THE INVENTION

The instant invention, generally 10, controls the amount of beads being dispensed onto a thermal (or other) stripe or marking, minimizing waste by not dropping excessive beads. The bead box 12 is capable of dropping six to ten pounds of beads per one hundred square feet.

An adjustable lever 14 with a spring plunger 16 allows the user to choose the glass bead flow rate by simply moving adjuster 14 to one of four settings 18. The adjustable lever 14 is attached to an offset shaft 20 that applies tension to the polyurethane flap 22 when rotated. The more tension applied, the less beads dropped. There are four settings 18 the user can choose from to fine tune the amount of beads being dropped from six to ten pounds per one hundred square feet. A driven roller 24 on shaft 26 helps dispense the beads. A bead hopper 28 supplies beads to bead box 12.

It is contemplated that various changes and modifications may be made to the bead dispenser without departing from the spirit and scope of the invention as defined by the following claims.