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INFLATABLE PAD WITH ALARM

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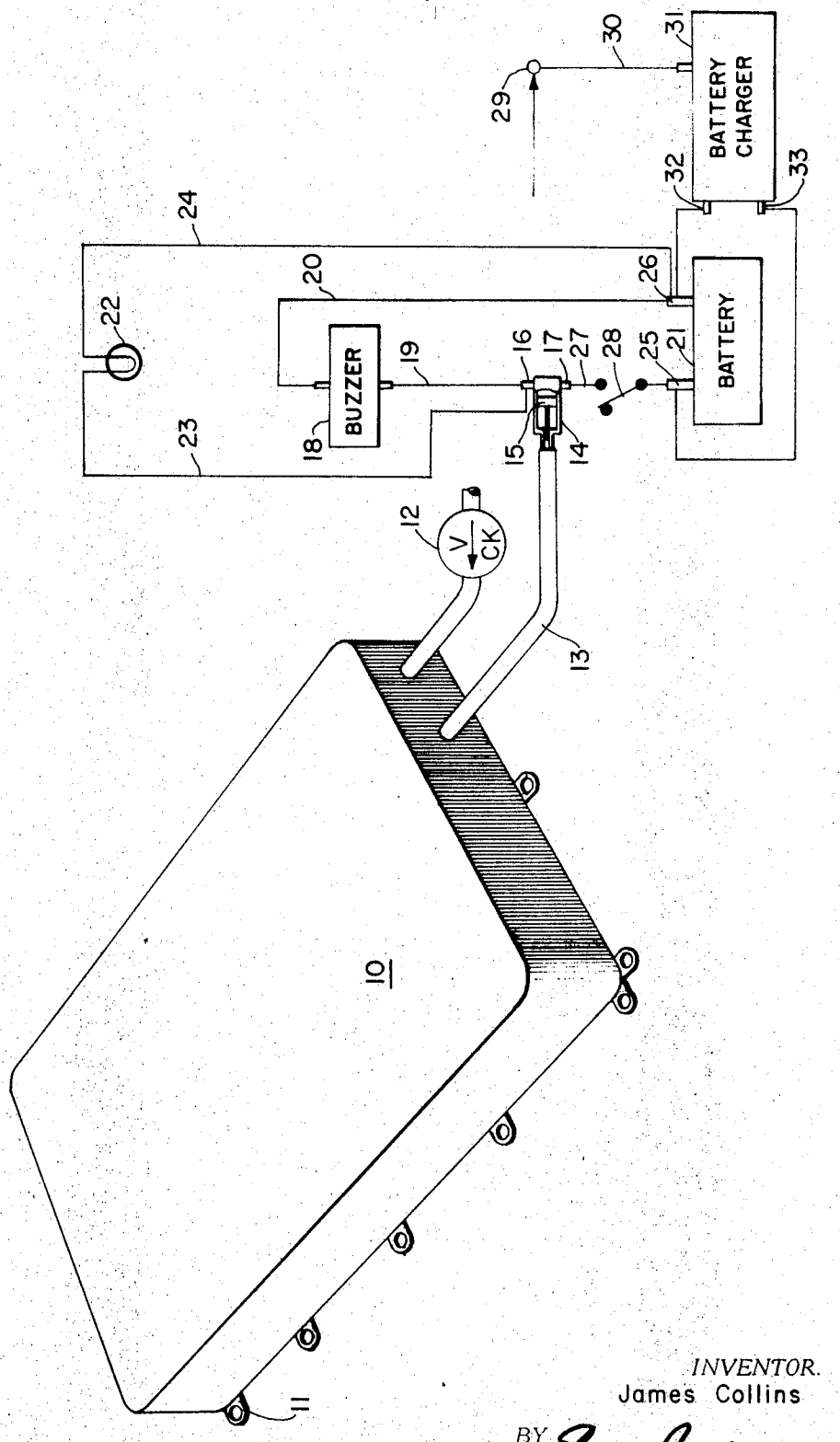

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INFLATABLE PAD WITH ALARM

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ABSTRACT OF THE DISCLOSURE

An inflatable pad which is designed to assist the owner of a mare, who is about to deliver a foal, by warning, audibly and visually, the owner of the displacement of the weight of the mare upon the inflatable pad at delivery time, so that said mare may be assisted in the delivery.

My invention relates to alarm mechanisms and more particularly to a mattress alarm for use in a stall maintained on a horse farm.

My invention also relates to an alarm mechanism which may be used in rest homes or hospitals, where patients or occupants may indicate, by change in position, the need for attention.

The principal object of my invention is to provide an alarm system where reactive forces on a pad or mattress cause an alarm to be sounded when an animal such as a mare lies down on this mattress.

Another object of my invention is to provide an inflatable pad or mattress, having a valve connection so calibrated that the displacement of the weight of a standing mare will cause an activation of an alarm system connected within the system.

Another object of my invention is to provide an inflatable pad, placing it in a stall so that when a mare, who is about to foal, lies down a buzzer system will be activated so that she may be assisted.

Another object of my invention is to provide an alarm system which is adapted to detect reactive forces upon a mattress.

Still another object of my invention is to provide an alarm system which will be operable for an extended period of time even though a power failure occurs.

In general, my invention consists of an inflatable pad to which is secured a pressure switch maintained in a line connected to a source of power such as a battery, a battery charger unit connected to said battery and an indicator light and buzzer system connected in the circuit, which buzzer and indicator light are activated upon the closing of the circuit when the pressure switch plunger is advanced.

Specifically, a mare who is standing upon the mattress displaces the weight when she lies down, thus causing the air within the mattress to force the piston in the pressure switch to move to close the circuit.

Other objects, in details of construction, will become apparent in the description and the accompanying drawing, wherein I show, in:

FIG. 1 is a view of the mattress with the pressure switch and circuitry controlling the alarm mechanisms.

Referring now to the numbered parts of the drawing, I show a mattress or paid **10** having means such as **11** for securing it to the floor of a building or stall.

A check valve is indicated at **12** and is secured to the inflatable portion of the mattress **10**. This valve **12** is bled when a particular animal or object is upon the mattress in a predetermined position. In the case of a mare, this would be in a standing position.

Subsequently, when the mare lies down the displacement of her weight will cause air from the mattress to expand into connection **13** into the pressure switch mechanism **14**, to cause a piston **15** to move to a position, intermediate terminals **16** and **17**, to close a circuit to a buzzer or other alarm device indicated at **18**, through leads **19** and **20**. Leads **19** and **20** are connected to a battery **21**. Similarly, the closing of the circuit between terminals **16** and **17** by positioning of piston **15**, activates a light or other warning device **22**, by closing of a circuit through leads **23** and **24**, connected to terminals **25** and **26** of the battery, which terminals also connect leads **27** and **20**.

I provide a manual switch **28**, which is connected between terminal **17** and battery connection **25**, which acts as a manual control device. A source of power enters through terminal **29** and may be such as is ordinarily supplied to a structure by a commercial utility, and is carried through lead **30** to a battery charger unit **31**, which is connected by terminals **32** and **33** to a battery, preferably 12 volt, with connections **25** and **26**.

In operation, changes in position of an animal upon the mattress causes a change in the pressure exerted upon the air, which change in the position of the animal, or other object, upon the mattress forces the air outwardly to activate the pressure switch to set forth an alarm system which I have constructed as a dual system, comprising both an auditory and a visual warning system, to advise the mare owner of the change in position of the mare so that she may be assisted.

My experience, particularly in the field of race horses, is that about six out of 40 foals are lost because there is no one to assist the mare at the time of delivery.

Having thus described m invention, what I claim is new and useful and desire to secure by United States Letters Patent is:

1. An alarm system for use in the delivery of foals from a mare comprising an inflatable pad, a check valve connected to said inflatable pad, a diaphragm type pressure switch connected to said inflatable pad, means for moving said diaphragm type pressure switch by displacement of the weight of the mare upon said inflatable pad, a circuit, said circuit connected to a power source, an audio signal means connected within said circuit, a visual signal means connected within said circuit, whereby said circuit is closed when the air is displaced in said pad and said audio and visual signal means are activated.

2. The device in claim **1** wherein the power source is a 12 volt battery.

3. The device of claim **2** wherein the battery is electrically connected to a battery charger unit so that a failure of power will not disable the audio and visual signal systems.

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