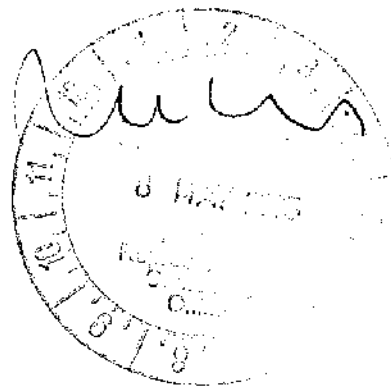


5033 11/12

Ian Dundas
The Secretary
House Select Committee on Bushfires
House of Representatives
Parliament House
Canberra
ACT 2600



May 6th 2003

Dear Ian,

Please find attached an invention that I submit in response to your advertisement for Inquiry into the Incidence and Impact of Bushfires. I feel that if the idea has merit it should be used for the benefit of the community.

Yours sincerely

Whitbread

Peter Whitbread

PS. Please acknowledge by letter
acceptance of document.

From Peter Whitbread

Description of the invention named Firestorm Defense System

WHAT DOES THE INVENTION DO?

The invention stores water for use at a time of bushfire. It allows water, which is stored in a cement tower approximately four meters high, to be forced under pressure to produce a high rate of water flow through a suitable flow adjusting nozzle. This will allow the water to be used in an effective manner to fight a fire. The invention will help save lives, homes and property in any setting, in the city or country, but should really be promoted for use next to bushland settings. In short, it is like having a fire engine on your property. You operate it yourself or allow fire personnel to use it.

WHAT PROBLEM DOES IT SOLVE?

The invention will: -

1. Contribute to the saving of lives and homes in the event of a fire.
2. Overcome a loss of water pressure in the underground mains water system. The loss of water pressure in the mains system prevents users from effectively defending their lives and homes. This problem occurs because of a high demand on that system at the time of a fire.
3. Solve the problem of having to rely upon a fire engine being present to fight a fire. That can occur due to a high demand on the fire service or other circumstances causing a delay such as a road access being blocked due to fire and smoke. Fire personnel or residents could use the system when there is no fire engine available.
4. Give an incentive to homeowners to stay with their homes in the event of a fire. This is the advice that fire services repeat over and over again. The advice is given, according to my understanding, because of the following reason: -

Once the initial fire storm has passed houses can still catch alight because of burning embers in the air that fall upon combustible materials such as window sills, roof gutters and eaves etc. These embers can also land on brush next to the wall of a house for instance and cause a secondary fire to ignite on the structure or next to it. The Firestorm Defense System will be ready to put out these secondary fires (spot fires) and save more homes. Homes are lost because there is no one there to fight these spot blazes.

The FDS will give incentive to homeowners to remain with their homes and use the FDS to put out all spot fires. Also water may be unavailable after a firestorm so the FDS will provide a supply of thousands of litres of water to put out spot fires.

HOW DOES IT WORK?

The invention consists of a tower containing several thousand litres of water. When the water is required to fight a fire a weight is released to increase pressure upon the body of water. This pressure is greater than the normal pressure that would occur from the force of gravity. The increased pressure allows a jet or forceful spray of water to be ejected through a hose and nozzle. This water can be directed at the fire or used to cool surfaces. It's so simple!

Alternatively, the volume of water could also be forced through an inground or elevated irrigation system affixed to either the walls of the house or at the boundary of the property-along the fenceline.

In addition to the tower which can be operated as a free standing system with just a hose and operator the Firestorm Defense System could be used to support a boundary irrigation line that would produce a spray of water on the boundary line.

A second system of defense for all bushland properties should also include an irrigation line positioned along the boundary of the property and supplied by the mains underground water supply in addition to the FDS tower. Such a system will help supply water to the perimeter of a property. If each property had a boundary defense water system then that defense line would encompass a whole community. And if each home had a FDS it would give the community a large body of water (collectively) to be used as a needed resource on their day of emergency.

WHO WILL USE IT?

Home owners and fire service personnel can use the system.

WHAT ADVANTAGES OR BENEFITS DOES IT HAVE FOR THE USER?

On present thinking the best approach and advice to fight a fire is to stay with your home. We often hear this advice whenever fires threaten during the summer. The invention allows the homeowners to stay at their homes when fire threatens. It does not force the householder to stay but gives an advantage if they decide to do so.

The system allows for the use of water when other sources are not available. The invention allows the user to have a supply of water under pressure available for use to fight a fire when other sources of water are not available or have run out or where the mains water system has failed to supply water under sufficient pressure to fight a fire. The water is available independent of electricity because it is a mechanical system standing separate from the mains supply and therefore is not subject to power failure during a fire.

It is better than a fire engine in the instance when a fire engine can't access a property because the FDS is already on the property ready to be used.

It has the above advantages plus it does not rely on electric or petrol/diesel motors, which can fail.

It allows for fire personnel to be on hand without a fire tanker.

The installed system should theoretically reduce home insurance costs.

DESCRIPTION AND PLACEMENT

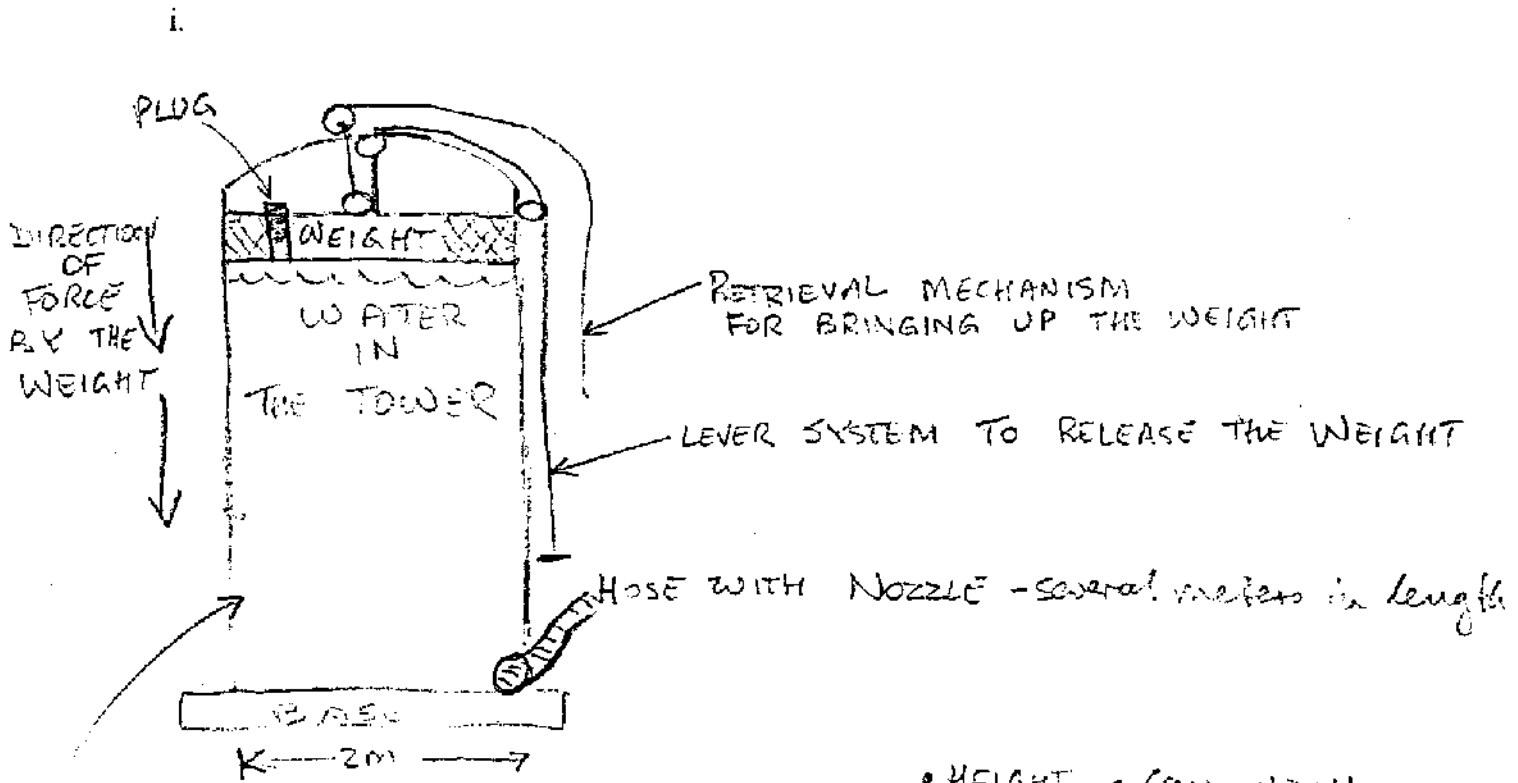
1. A cement tower of approximately 2m diameter x 4m height.
2. The tower can be built into the ground to lower its appearance.
3. It can also be incorporated into the design of the home to hide its presence.

I haven't made one and haven't worked out specifically its weight, however I expect that when full of water the structure would weigh just less than 13 tonnes.

The water can be supplied through the mains system or from roof runoff as with a water tank.

Besides cement the tower would be lined internally with a rustproofed smooth metal membrane or a smooth plastic membrane to allow the mechanical weight to fall evenly down the inside of the tower.

A Rough sketch of the Firestorm Defense System



SMOOTH INTERIOR SURFACE

- The weight can be retrieved back to the top of the tower to be reused.

- THE PLUG IS UNSCREWED AND THE RETRIEVAL MECHANISM (a chain or rope) pulls up the weight.

- HEIGHT - Can vary above ground
- THE TOWER could be installed partly below ground
- THE F.D.S. ~~can~~ could be incorporated into the design/architecture of the home.

- THE SIZE OF THE TOWER CAN VARY ACCORDING TO THE DESIRED VOLUME OF WATER STORAGE