

set for the desired time for pre-heat and treatment, then the start button is pushed. The steam solenoid opens, the blower runs and the door closes. At the end of the preset time the solenoid closes, the blower stops and the door opens.

The pneumatic rams are 6' long \times 1" diameter and operate on approximately 70 p.s.i.; restrictors are incorporated to give a slow opening and closing of the doors. The doors are counter weighted so that if the air pressure is lost they will slowly close on their own weight, yet can be easily opened by hand if necessary.

This equipment has been in operation for the last five years and has been virtually trouble free for that period. The only troubles we have had are a couple of solenoids requiring new discs and vault doors requiring occasional lubricating. The seed treatment unit that we have had in operation since 4 July 1962, and still going strong is manually operated, but can easily maintain temperatures within 0.2°C.

In 1974 I had almost completed an automatic unit when a couple of electronic technicians figured they could do the job better and more accurately, electronically. Alas this was not the case and now I am virtually back to where I left off. Hopefully I will be able to report on this unit some time in the near future.

PLANTS ON WHEELS

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Why do we call this system "Plants of Wheels"? We looked at many different ways of moving plants. We looked at using as much productive space as possible and still be able to make the growing area work efficiently. We looked at a pallet system, a moving bench top, conveyor system and the uneconomical fixed bench. None of these were what we wanted in making plants totally mobile all around the nursery. Taking some of the ideas from each of these systems, we made our own design, which is a totally mobile bench.

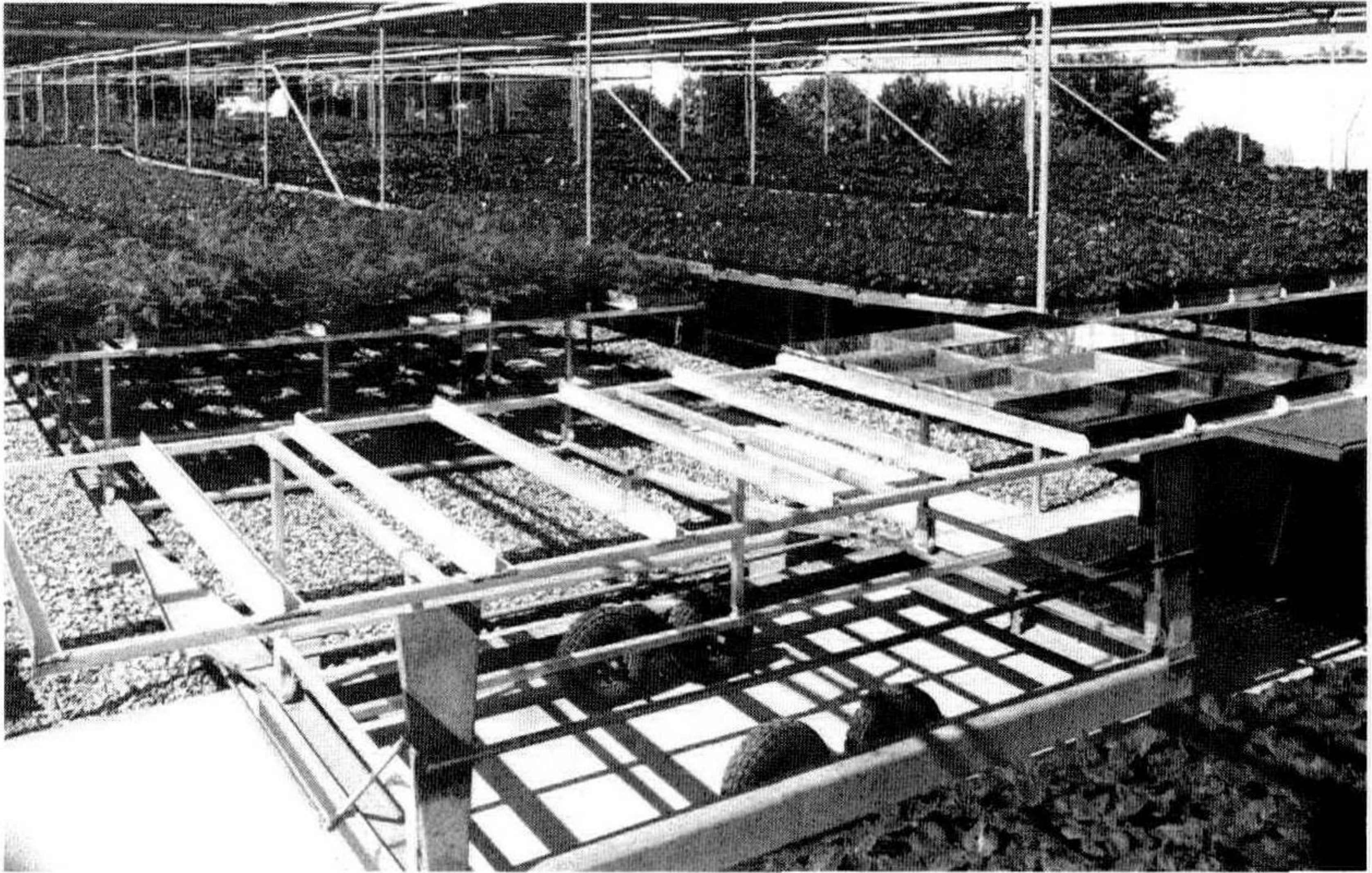


Figure 1. An aluminum frame which holds 36 plastic trays set in the rubber-tired trailer for moving. The frames are on four wheels, which run on two tracks. These frames are 500 mm high for good hygiene and for ease of handling. We used aluminum because of the rust problem with other metals and for the light weight. It cost a bit more, but it is worth it.

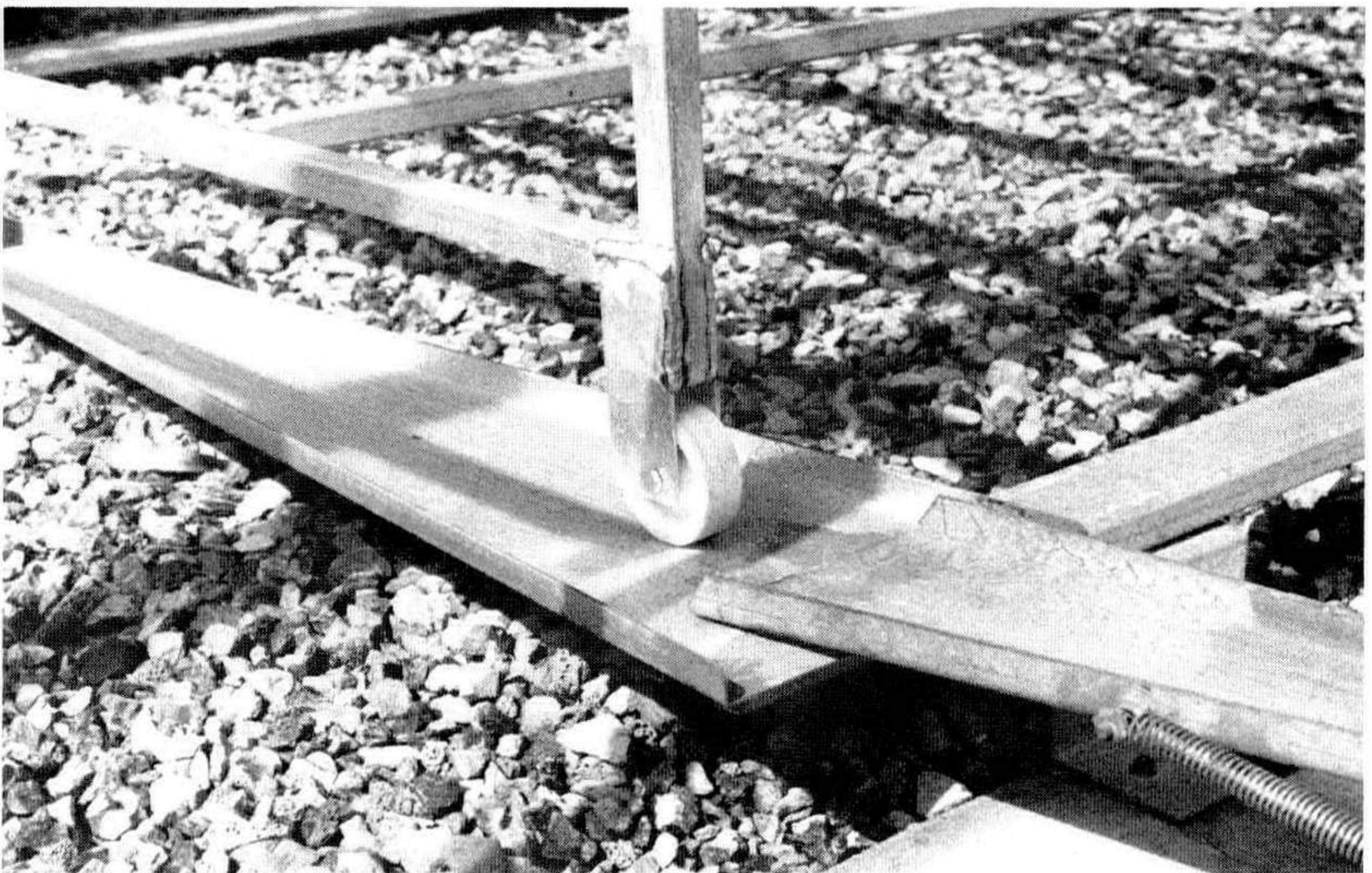


Figure 2. The tracks are made of two "Z" shaped sections, separated by sleepers every two metres. The wheels on the bench run on the outer bottom section of the "Z" shape. At the end of each track, on both sections, there is a "V" shaped lead-on used to direct the wheels on and off the track.

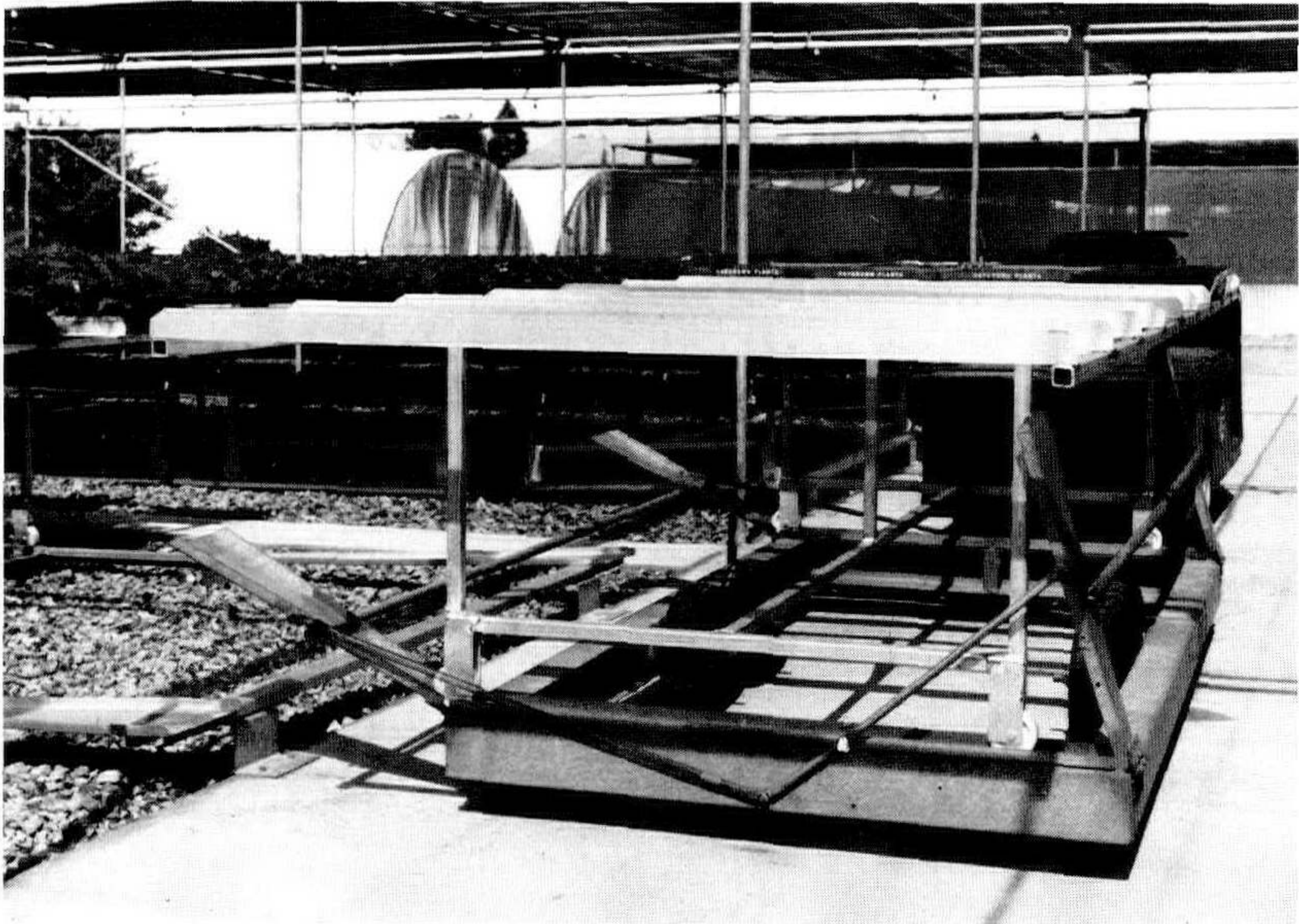


Figure 3. The benches are transported on a trailer towed by a small tractor or electric truck. The trailer is the key to the whole system because with the trailer you can move the benches anywhere you want. The trailer is constructed on only a frame for light weight and for ease of handling the benches on and off the trailer. A "U" shaped channel runs across each end of the trailer which the bench wheels run in. On the end of the channel on both sides of the trailer there are "V" sections like the lead-ons on the end of the track. These sections are hinged at the end of the "V" shaped channel to allow the "V" sections to be placed on the track lead-ons. This enables the benches to be rolled on and off the trailer.

In conclusion, an excellent system for a new glasshouse or shade house or, if you wish, to convert any original house. With rising heating costs this system of mobile benches saves space by needing only small paths between benches. Labour is also saved because one person can move 200 to 300 pots with the aid of the trailer and towing vehicle anywhere on the nursery. This is why it is titled, "Plants On Wheels"; the plants don't need to leave the benches the whole time at the nursery.