Things That Need Inventing

By George Porter

It has been said that, "necessity is the mother of invention." This has applied to this industry since it began but it seems to be centered on how to get the work done that we have to do. For instance, rolling and jacking systems and six way hitches on trucks. These tools are a great help to the installer. One could probably argue that there is also a benefit to the consumer here somewhere because these things save time and expense and are easier on the structure of the house. The customer benefits in the long run. The people who invented these tools have profited from them, and rightly so, but if you really want to do well in the invention business you need to develop something the homeowner wants and needs. There are many more homeowners than installers and the market is a lot bigger, perhaps as much as a thousand times bigger. This is where the gold is buried and, as a late Christmas present, here is the first in a series of articles as to where to start digging. If any of these make you a multi-millionaire, a simple thank you card will do.

The first step in inventing something is to find a problem to solve. It should be a problem that intrudes on people's lives everyday and causes them discomfort and preferably causes them to loose money. Find something that does all these things, figure out how to fix it, and you will owe me a card.

Usually the problems that you find will not be something obvious. The big obvious things have been done a long time ago. They probably stopped progress or were something that had to be fixed before the next step could be taken. Nobody knows who invented the bridge or the wheel but a lot of folks have improved upon both of them over the centuries.

This first idea involves some sort of air conditioning system. The problem is that along the gulf coast and the south east in general, humidity and heat are a problem. Every one there has an air conditioner and because of the heat it has to be a pretty good size one. It simply takes some big machinery to keep a home cool when the outside temperature and humidity are 100+. You folks out west don't have the humidity problem like this area does. While you may be familiar with the heat you can not possibly imagine how that same heat feels with extreme humidity. People die from it all the time and the electric bill for the AC can get large. A further problem is that a unit big enough to cool the place when the heat is really up, may not be able to dehumidify the home when it is not so hot. The result is that when the outside air is around 90 degrees you certainly want to run the AC but it doesn't run long enough to pull the moisture out of the air and you usually get a damp cold. Our tightly built wooden home is very prone to condensation under these conditions and it rots.

Well, do we have all the ingredients yet? People need AC and in order for it to work it will sometimes cause the home to rot or at least to suffer the ravages of moisture, such as warping and sagging. This regional climate has been around forever but in 1994 the new HUD thermal code made the homes very tight and it has made our problem a lot worse. What to do about it is the question. If you just put in a smaller AC then you solve the humidity problem because it will run longer but

it won't handle the load when it gets really hot outside.

Here's the solution and it has two parts.

1. Invent a two or three speed, or stage, air conditioner. It would operate like a big unit when it got hot and it would drop back when the outside temperature was lower. It should also be able to run very slowly and act as a de-humidifier after the thermostat was satisfied. The result would be a cool dry home but only where the people lived, what about rest of the structure?

2. Pressurize the envelope. (envelope is an engineering word for house) I have been told by engineers that currently the Hud Code does not allow you to do this. What we are talking about here is the use of a very small fan pulling outside air into the home and forcing the dry inside air out through the rest of the structure. This would include the walls, floors, and roof areas. This is not like the pressurizing in an airplane, it is a very small force and virtually undetectable except by the use of special instruments. It doesn't take much but, without positive pressure, the moisture is always trying to get in the home instead of sort of being pushed out.

Getting this adjustment to the code is not as hard as you might think. If a manufacturer were to thoroughly document the need and that this solution will work, then it may require no more than a DAPIA stamp to make it so. We do have a performance based code and changes such as this are made all the time.

Good luck, and one other thing, someone will make this work; it might as well be you. This area represents over 50 % of the ManufacturedHomes in the US. I am sure it would be worth your while.