## SQUARES, ROUNDS AND HEXIGON

Someone asked me recently did I know how to calculate the maximum size of a square obtainable from a round bar as they were filing up a square end on bar material for a brake shaft.

Whilst I could not remember off the top of my head I did advise that I had a handy little diagram that explains all the permutations regarding the above shaped material expressed as formulae. I obtained it many years ago, probably from a Model Engineer or Engineering In Miniature magazine, and a copy lives just above my lathe on a data board.

It's reproduced here as I do find it very handy, especially when you need a square or hexagonal piece of material but find you only have round in the material store.

Mike Gipson


## Seven and a quarter

A group of 10 people around the world including ex member Paul Smitherman are building 71/4" versions of Maryland 6 the largest Shay ever built which is now at Cass in West Virginia, USA. Here is the engine for one of the10 in Pennsylvania, which has been air tested, and the piston valves. Paul has taken on building the boiler in copper for this one as well as his own. What about that on our track


