

# G A D G E T S . . .

A gadget is a simple and cheap mechanism which is supposed to make the life easier. This is my own definition, and the stress is on "is supposed to...", meaning that really most gadgets do not perform at all or very poorly.

One might say that all our civilisation is based on gadgets. And all of them are working just so so. The really important ones are somehow never invented. Such as a tire which would not skid on ice, or a cooking utensil which would make soft-boiled eggs just the way you like them ( the latest in this line I have seen, advertised as "novelty" has been invented some 4,000 years ago in Egypt, I believe). Or a dripless teapot. Or an ashtray where one could extinguish a cigarette without burning one's fingers and making a smelly mess. And the funny thing is that all these gadgets could be, and often were invented, but for some reason never put on the market. There must be some dark powers behind the throne who watch, lest our life became too easy.

What is true about life in general is also true about handweaving. Here also we have gadgets, and true to the principle, they also do not work. And here again they could work, or even they did work some centuries ago - but not now. We shall enumerate only the worst examples, and the reader undoubtedly will find many more.

Let us start with the looms, or rather different "improvements". The loom itself no matter how bad cannot be called a gadget. One of the improvements for instance is a drum with pegs in it sitting on top of the loom, and opening the sheds. In principle it is a cross between a Jacquard and a barrel organ, and as often happens with cross-breeds it inherited only the limitations of both parents. It reduces weaving to very few and simple weaves and does not help in any way \*). But it is expensive all right.

Another sort of misdirected inventiveness produced the pre-fabricated warp. Spools with ready-made warp to be put on a shaft in the back of the loom. Well, why not? It saves time and worry involved in warping - it certainly does. But then a power loom saves time and worry involved in handweaving. If we buy ready made warp, why then not buy ready-made fabrics? Whether such inventions work or not is incidental. It is the principle which is completely wrong. A craftsman enjoys his work and does not want somebody else to do it for him.

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\*) To be fair, the same gadget has its merits when used for occupational therapy, particularly for mental cases who can not remember the order of treadling.

Another item of the same kind are easy to change wire or even cord ties of fixed length for the lower tie-up. The idea is to speed up the tying up of a loom. Unfortunately the ties nearly in all cases must be adjustable. If they are not we have either poor sheds or too much friction. It is possible to build a loom with fixed ties, but so far we have no such loom on the market.

Then there is the "race board". A flat board attached to the batten so that the shuttle slides on a solid support. Excellent idea used for some 200 years or more. But... Originally it has been designed for a flying shuttle. With a hand shuttle it works only if the length of the race-board is the same as the width of the warp. Otherwise the weaver hurts his fingers each time he throws the shuttle.

What then about the flying shuttle? Too many weavers get unreasonably excited over this gadget before even trying to see how it works. It is a perfectly legitimate piece of equipment for weaving wide fabrics - such as could never be woven with a hand-shuttle. It requires a lot of skill and it is certainly a hand-operated device. But when used on narrow warps for pattern or texture weaves it is a hindrance, and then it works actually slower than a hand-shuttle. What we object to in the case of flying shuttle is, that whoever uses it for other purposes than wide fabrics means mass-production, and mass-production is not compatible with crafts. But it would be as bad if somebody employed for mass-production highly skilled "shuttle-pushers" who can work as fast with a hand-shuttle as with a flying one. Thus the very invention is not bad in itself, but it is either impractical or unethical - always with the exception of very wide fabrics.

Since we are on the subject of shuttles, let us see what we have in the line of hand shuttles. Most of them are too light, too low, and too narrow, but this is besides the point. Bad as an average shuttle is, an "improved" one is still worse. Like open shuttles with a strange cross-section which is supposed to fit the shed. Shuttles with two or three bobbins on a single shaft. Then shuttles with rollers at the bottom, metal tips etc., - all reminiscences from the early types of power-shuttles.

Speaking about shuttles we may mention that there is such a thing as ready-wound weft tubes. You buy them, place them in the shuttle, and... sometimes they work. It all depends on the size of the shuttle. But even if they worked there is still the same objection as in case of ready-made warp.

Electric bobbin winders are a borderline case. Should a craftsman use them or not? One can have a principle: No Power in Handweaving. After all if we can use power-winders, then why not power-warping-mills, and power-loom? But the question is not as simple as that. So far none of the gadgets under discussion could save us much time even if it worked. But if we could prove that an electric winder works much faster than a hand model, we would have a point in its favour. But does it?

In the case of standard yarns good hand winders (e.g. converted spinning wheel) are as fast as electric ones, and much easier to control. But when it comes to fine weaving, particularly with

yarns sold on skeins, the amount of work involved in winding one skein on tubes, or bobbins becomes a problem. And it is still a problem when one tries to do it on an average electric winder. Neither hand nor electric winders are fast enough. Personally I use a  $\frac{1}{4}$ " electric drill which is far from being satisfactory because of the lack of proper control. And then I feel a little guilty about it. If I am a good craftsman I should have enough time to do it all by hand. With No.100 silk (deniers) it takes about 5 hrs to re-wind one pound. No use going faster because the yarn will break more often. With a very good hand-winder it will take only slightly more - perhaps 6 hrs. But who can turn a crank six hours at a stretch?

Therefore we can say that as far as standard yarns are concerned the use of an electric winder is not justified, but when working with fine yarns we definitely need some sort of a winder: stronger than an electric bobbin winder, but better controlled than an electric drill. Perhaps some of the existing electric winders can do the trick.

There is another class of gadgets, which in principle are quite legitimate, and which were used even before the industrial revolution, but which are now either misused or so poorly built that they can not be of any use to anybody.

Let us take as an example a Doubling Stand (described elsewhere in the same issue). It is very useful and as cheap as it can be. But the only model I know about which is available has all possible faults and drawbacks at an exorbitant price, although the information about the functioning and proper design of such a stand is free for the asking.

Finally there is a class of gadgets, which are properly constructed and not too expensive, but unfortunately not properly understood by the weavers. We do not sympathise as a rule with the manufacturer. After all it is he who gathers when we all toil. But sometimes even his lot is not to be envied. I heard a story about a loom-maker whose worst difficulty in promoting his looms was to explain to the customers why the loom has six treadles and "only" four harness-frames. Well! This is only partly the fault of the manufacturer who either cannot supply the customer with easy to follow instructions, or cannot train his agents to demonstrate the equipment, but largely the fault of the weaver who just does not take enough pains to learn more about the fundamentals of weaving. Those "misunderstood" gadgets are sometimes excellent pieces of equipment as for instance warping mills, shed regulators for counter-balanced looms, pattern harnesses for 4-frame looms, and so on. They should never be acquired unless the weaver understands perfectly how they work.

Of course there are also good gadgets even in weaving. They are the ones we did not discuss in this article. On the other hand by a peculiar coincidence we have never heard about them.

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