

and each camel slowly lower himself to be unloaded. After this they would as slowly rise and stalk away to the stables to which they were accustomed to resort on these occasions.

The distance from New Ephesus to the railroad that communicates from Smyrna to the interior is not more than about three hours' ride, but it was thought advisable that our party should have an escort, as not many days before a number of travellers had been stopped, and some of them killed, by the marauders that infest the coast.

We had no interruption, and reached the station just in time to catch the train, which on this occasion was about three-quarters of an hour before its time. As, however, time is of very little value in the East, no one would have thought of being surprised if we had been too late, and obliged to accept the best accommodation that could be given at the station till another train came by, which might not be for four-and-twenty hours. The railway passes near the ruins of ancient

Ephesus, and stops at several stations before approaching Smyrna. The outskirts of that city are covered with villas and cultivated lands, and exhibit an appearance of wealth fully justified by the general aspect of the town, which is, however, far too European to possess much interest for the traveller. The bazaars are as far inferior to those of Constantinople as the shops in the principal street are to those of Paris and London. Much has been done to improve Smyrna in the construction of public buildings, and a complete and magnificent system of docks in progress will render it more accessible than any city in the East. The trade is already very large, and must increase; but hotel accommodation by no means corresponds with the general appearance of the new streets, and is far too Oriental to please the Western traveller.

From Smyrna there is frequent and direct steam communication with Syra, the steamer passing the principal islands of the Ægean Sea, and from Syra back to Athens is only a passage of a few hours.

SMALL MANUFACTURERS.



IN a recent article, we brought under the notice of our readers, the hard and continual "struggle for dear life" which is the lot of so many of our small traders; and the object of the present is to place before them another class equally entitled to their sympathy and consideration, though not so frequently brought under the direct eye of the public—the "small manufacturers." At the same time it must be admitted that many of this latter class are rapidly dying out, and those branches which still exist are comparatively ignored from their skill

and labour being only brought under our notice by the so-called wholesale manufacturers, who, if the question were rightly considered, are hardly entitled to the appellation, being in fact the brokers, or middlemen, between the real makers of the article they sell and the general public.

Machinery, again, with all the benefits that it has bestowed on society at large, has at the same time done much to injure the small manufacturer, and that, too, occasionally to the prejudice of thousands of our industrious fellow-subjects who were unable, either from want of political influence, too slender means, age, or habits of life, to betake themselves to any other remunerative occupation.

Of the numerous small manufactures which are rapidly becoming extinct, there is not one that deserves our commiseration more than the pillow-lace-maker's, and the more so from forming, as it does, one of the connecting links between a skilled handicraft and a branch of the fine arts. The whole history of pillow-lace-making in England is exceedingly curious and

interesting. When first the art was introduced into this country, and to what nation we are indebted for it, at the present time it would be difficult to determine. Mary de Medici is stated to have carried it to France from Venice, where, as well as in the neighbouring states of Ferrara, Modena, and Milan, lace seems to have been worn long before she quitted Italy. There is a tradition that lace-making was introduced into this country by some refugees from Flanders, who settled near Cranfield in Buckinghamshire; and it has been supposed that the first kind so made in England was that known as "Brussels point," the network being made by bone bobbins on a pillow, and the pattern and sprigs worked with the needle.

At the commencement of the last century, pillow-lace-making employed many women in Bath and the surrounding villages. The trade in the locality afterwards received a considerable impulse from a cause in which the romantic and terrible were strangely intermingled with the practical. In the year 1696 the Laird of Bargarran, who resided some eight miles from Paisley, had one of his children, a girl about eleven years of age, thrown into an epileptic fit in consequence of a fright she received from an old beggar-woman, who threatened to bewitch her and all her family for having refused to give her some milk and other food she said she required. Little notice was taken of the threat at the time, but a few days afterwards the child had a second fit, and a few days later a third. The family now began to suspect that the old woman had really bewitched the girl, and a meeting of the clergy of the district was called to inquire whether there was any ground for the suspicion. The reverend gentlemen cross-questioned the child as to what she saw during the fits, and by putting leading questions, succeeded in eliciting from her that on those occasions the old woman, though invisible to others, was always

present, cruelly torturing her because she would not worship the devil. The old woman was accordingly arrested, who, to escape herself, accused others of being the witches who tormented the girl; and the result was that some fourteen were arrested and sent to Paisley for trial, when nine, on the evidence of approvers, were condemned and burnt on the Gallowgreen, Paisley, the spot on which they suffered being now marked with a stone cross.

The girl, the primary cause of this cruel judicial murder, continued to reside with her family without anything particularly worthy of notice occurring till she was about seventeen years of age, when she became exceedingly low-spirited and melancholy—so much so as to cause great uneasiness to her family. Her father, by way of amusing her, bought her a spinning-wheel and a quantity of flax. In a short time she attained great skill in this occupation; and by way of encouraging her, the Laird her father caused a large stone slab to be fixed in front of her bed-room window, on which she could bleach the thread after she had spun it. One autumn, after she had accumulated a considerable quantity of thread, Lady Blantyre, the wife of the judge who had presided at the trial of the witches, called at Bargarran House on her way to Bath, where she had been advised to pass the winter for the benefit of her health. Seeing the thread the daughter had made, her ladyship complimented her highly on her skill, saying it was the finest thread she had ever seen, and offered to take the whole quantity with her to Bath, where she would sell it to the lace-makers who abounded in that city. The offer was gratefully accepted, and her ladyship, through a broker, sold the whole quantity entrusted to her for double the amount the family had calculated on. At the death of the father, the Laird of Bargarran, the mother and daughter went into partnership, and till their death carried on a large trade in thread, not only for lace-makers, but the linen trade generally, and in Bath it maintained its reputation until the middle of the last century. Later, Bedford, Buckingham, and Northampton became the principal centres of the pillow-lace industries; but the prosperity of this manufacture met with a terrible competitor in the application of machinery to lace-making in Nottingham and other places, till at length the handicraft makers were fairly driven from the field. Yet this was not effected without a determined struggle on the part of the pillow-lace-makers. In a petition presented in 1830 to Queen Adelaide by the poor women employed in the trade, it was stated that no fewer than 120,000 persons were dependent on it for their daily bread. An attempt was then made, but without success, to bring pillow-made lace into fashion, and it gradually sank, those now employed in it being comparatively few in number, and even by the greatest industry being hardly able to earn the bare means of existence.

Another and equally interesting branch of our small manufacturers (and here let it be understood that we apply the term to those handicraftsmen who work at home in their own dwelling-rooms) also appears to be dying out among us—the veritable Spitalfields weavers.

It would be a curious study to trace the history of this trade in Bethnal Green and the neighbouring parishes, from its first introduction after the revocation of the Edict of Nantes to the present time. Many a bright example of indomitable industry, charity, and love for the Protestant religion, and that frequently in the face of apparently insuperable obstacles, might be quoted among the original settlers in the district, and as many and as edifying instances of integrity, long-suffering, patience, and self-respect among those still remaining in the trade. Again, among those who first practised the trade or art of silk-weaving in the district were many members of the oldest and most aristocratic families in Europe. Should the reader doubt this statement, he has only to stroll through the graveyards attached to Spitalfields, Shoreditch, and Bethnal Green Churches, and he will find marked among the more ancient tombstones some of the oldest names among the noble families of France—names of men who, rather than deny their religion, gave up the luxuries of their home-life, and worked hard at the loom and the shuttle in a foreign country where they might enjoy, undisturbed, the liberty of conscience. As a proof of their origin, it may be stated that among the earlier institutions they started was a charity school for the children of the distressed nobility and gentry (*noblesse et bourgeoisie*) of Spitalfields. The walls of this school still remain; but, alas! instead of a school for children of the poor, they now surround a vat in Hanbury's brewhouse. May we not say with Shakespeare—"To what strange uses may we come, Horatio"?

At the commencement of the present century there were few better-paid small manufacturers or home handicraftsmen than our Spitalfields weavers: there is hardly an occupation in the present day worse remunerated—certainly when the amount of skill and intelligence it requires is taken into consideration. Pass at any hour of the night you please through some of the back streets in Bethnal Green, and your ear will be struck by a sharp, rapid, clicking noise in some dimly-lighted room, whose windows generally extend almost across the frontage of the house. Inquire further into the subject, and you may find that the noise has continued with scarcely any interruption from six o'clock in the morning. The occupants of these rooms are all Spitalfields weavers, who, to obtain sufficient to keep body and soul together, are obliged to work sixteen or even eighteen hours out of the twenty-four. The husband takes the loom whenever his wife rises from it, and she again relieves him when he is tired. The life of these "small manufacturers" is certainly a hard one, but nevertheless it is much envied by other members of their craft who have no work to go on with, which as a rule is the chronic condition of, if not the majority, certainly a large proportion of their numbers.

At the commencement of the present century a skilful velvet-weaver and his wife were able to earn from £2 10s. to £3 a week: now 12s. will represent the average of their earnings. They get 1s. 2d. and 1s. 3d. up to 1s. 6d. a yard. They usually receive from their employers warp sufficient to make about

thirty yards; and after preparing it for weaving, which usually takes them upwards of a day, they have to put from fifty-four to fifty-six wires to the inch. The shuttle is then thrown through the warp three times for each wire, and the wire is then cut out. This process has to be repeated fifty-four or fifty-six times before an inch of velvet is made. Besides all this, for every quarter of a yard, from ten minutes to half-an-hour must be spent in preparing more silk to be made up. If the materials are good, a yard and a half may be made in fifteen hours. When the thirty yards are made, it is not at all unusual for a weaver to have to wait two, three, or perhaps four weeks before he gets more work. Weavers of the better class of silks earn on an average about the same as the velvet weavers, while those employed on inferior qualities are still worse paid. Umbrella silk weavers receive only 5½d. per yard, and funeral silk weavers only 4d.

Let us now turn to other small manufacturers; and there are many by whom the hard-earned wage of the Spitalfields weaver would be considered as a veritable God-send. We will take as our first example the maker of boys' caps. She first has to purchase the material—remnants of cloth of different colours. This in itself is a work occupying much time and anxious research, so that she may obtain them at the lowest cost, and of the best possible quality consistent with the small capital at her disposal. She finds also the thread, and when she has completed a certain number she sells them, generally to the clothiers, at 4½d. a-piece. After paying for the materials, she has about 2d. on each cap left to her as the reward of her labour, time, and capital. If she works hard she may finish perhaps six in a day; but if she has a family to attend to, her earnings are proportionately less. In summer she may do more, but from the shorter hours in winter the average is less, so that six a day will give all the year round a tolerably fair estimate of her returns. It may be said that in winter she might work by candle-light; but the cost of the candles would be to her a matter of grave consideration, and she is obliged to calculate the expenditure of every penny.

Then again, the professed needlewoman may be classed among the small manufacturers. In the eastern districts of the metropolis these abound to such an extent, and so diverse are the objects they are employed on, that it would be a difficult task to convey to the reader a general impression of the whole. Let us commence, however, with the coarse shirt maker. Finding her own needles and thread, she is able to earn 9d. a day; but the sewing-machine is now throwing her out of employment, and she must take to some other handicraft; but what is open to her it would be difficult to say. Shirts of a better quality are paid for at a somewhat higher price; but not one in a hundred of these poor women, many of them widows with small families, is able to earn 1s. a day. The needlewomen who work at men's slop clothing are quite as poorly remunerated. A rough pilot coat, for example, will take a woman between two and three days to make, and for which, when completed, she will

receive from 1s. 3d. to 1s. 6d., finding her own thread, and braid for the button-holes. For canvas trousers she receives only 4d. a pair, and for those of cloth of the quality worn by soldiers and sailors she is paid 8d. each pair. By hard work one of these women may earn some 3s. or 4s. a week. Here again the sewing-machine is gaining ground on the slop-workers with frightful rapidity. As one machine will do the work of five women, the lot of the majority of those who are now left to earn a living by slop-making will in a short time be gloomy indeed.

It might appear to the reader that it would be impossible to find among our small manufacturers those whose profits are less than those who have already been mentioned; but such is far from being the case. Bad as the remuneration of the slop-worker may be, it is much envied by the maker of carpet slippers. Her labour consists in making what are technically termed the "uppers"—in other words, sewing up the sides, binding them, and in fact preparing them to be fixed on the soles. For this she receives from 3½d. to 5d. per dozen pairs. With the assistance of a young girl, probably her own daughter, she can make on an average a dozen and a half pairs in the course of a day. Again, many of these small manufacturers suffer greatly from changes in the manner of conducting business of their customers the shopkeepers, and from the caprices of fashion. Many of these poor women formerly obtained the means of existence by sewing hooks and eyes on cardboard for the linendrapers. Latterly, however, their customers have adopted the habit of selling them by the ounce, and in consequence they have been obliged to seek some other occupation. The same may be said of those who formerly placed pins in rows on paper—a system which is no longer in use.

There are also hundreds of other small manufacturers of articles equally scantily remunerated, who never come under the notice of the public, and whom unfortunately our limited space will not, with one exception, allow us to dwell upon; but those perhaps of all are most worthy of our sympathy—the blind. Thanks to the exertions of our philanthropists, there is at present more opportunity of teaching the blind some skilled handicraft than was the case half-a-century since; but unfortunately much still remains to be done. As workmen in many branches—for example, brush-making, mat-making, rope and cord-making, as well as basket-work—the blind can work as expertly as those gifted with sight, but unfortunately much more slowly. The result is, their earnings are less, while their expenses for lodging and necessaries are quite as high—in lodgings especially, as the blind artisan, from the nature of his infirmity, requires more room. The women, again, are very skilful in many branches, especially knitting, and other works of a similar description; but their difficulty in finding customers is far greater than the ordinary needlewoman's, and the amount of their profits far less. Some admirable efforts to help them have recently been made by the Society for the Welfare of the Blind, still they are not equal to the occasion. An excellent system has lately been started

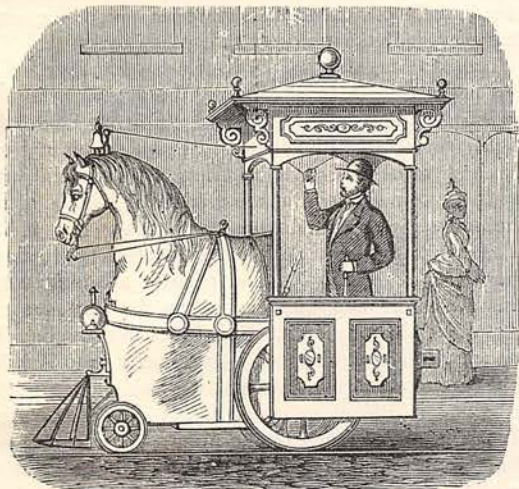
by the managers of the Blind School in St. George's Fields, Southwark. A long building has been set apart for the use of blind "small manufacturers," in which they may carry on their trades without house-

rent, and without private influence being necessary to obtain admission; their infirmity, and a good character for integrity and sobriety, being all the recommendation required. WM. GILBERT.

THE GATHERER.

The Modern Enchanted Horse.

We recently described a tramway-car propelled by means of compressed air, and one of the peculiar features of which was that, when looked at from the



street, nothing could be seen of the machinery. It looked just like an unhorsed tramway-car bewitched. An American inventor is convinced that one of the great difficulties in the way of driving street-cars by machinery is that they frighten the horses. He has therefore constructed an apparatus resembling a horse in form—it is shown in our engraving. It is the old idea of the Enchanted Horse of the "Arabian Nights," adapted to the nineteenth century; instead of flying through the air by turning a peg in the hollow of the animal's neck, the beast—but after all it is only half a beast—runs on rails, and drags after it a passenger car.

The motive-power is steam, generated in a tubular boiler of from four to five-horse power, located inside the imitation horse. This drives a patent rotary engine, which is geared to the driving shaft of the machine. Gas is used as fuel, so as to do away with smoke. The steam is condensed in cold water carried in a tank on the top of the vehicle. The gas used as fuel is compressed in suitable tanks to a pressure of 80 to 100 lbs. per square inch. The engine is provided with a break capable of stopping the apparatus within a space of twenty feet, while under a speed of eight miles per hour. It is said that the machine will run at from four to twenty miles an hour.

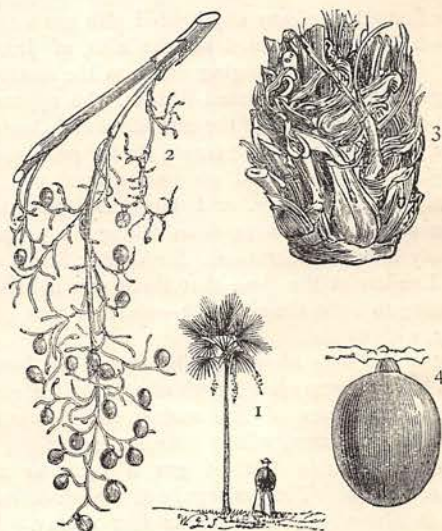
There is a signal-bell fixed above the horse's head, and a lantern is placed in front as a head-light, to give warning of its approach when the machine is running on dark nights.

We hope the inventor, in contriving this artificial animal, does not presume too much on the stupidity or near-sightedness of the genuine horse tribe. We must not forget that a horse is not an ass.

An Extraordinary Tree.

Folk-lore tells us of trees that speak and trees that sing; of trees of stone and trees with gold and silver leaves; and of not a few that are nothing but brave knights and gentle maidens laid under spells. But reality often beats romance, and in no fireside story we can think of is there a tree of such varied uses and interesting character as one of which an account has lately reached us from Brazil. It is the Carnouba (*Copernicia cerifera*), a palm-tree which, unaided by the cultivating hand of man, grows in Ceara, Rio Grande do Norte, Bahia, and other parts.

The catalogue of its uses is almost endless. Its roots possess medicinal properties, and form a good substitute for sarsaparilla. The trunk yields a strong fibre, as well as timber and excellent palisades for enclosures. From it also is extracted a sort of flour not unlike Maizena, and a liquid resembling the Bahia cocoa-nut. The palmetto top when young is a palat-



1. General aspect and proportion of the Carnouba Palm.
2. Pendant branch of fruit enlarged.
3. Upper portion of stem enlarged to the same scale.
4. Individual fruit natural size.

able and wholesome food, and one may extract from it wine, vinegar, sugar, and a species of gum in its taste and properties very like sago. The wood of the tree is good for making musical instruments, and tubes and