

# HUMAN PATCHWORK.

*HOW OUR WOUNDED WILL HAVE THEIR LOSSES OF LIMB MADE GOOD.*

By GEORGE A. WADE.

PEOPLE who go about wearing artificial legs, or even arms, are not very uncommon, but it may not be generally known that some persons there are who rejoice in the possession of artificial noses, and also lips which are not their own natural ones. Men and women with glass eyes may be met with almost every day, but who has seen a man with an artificial ear? Yet such there are amongst us, and it was with the view of learning something about the manufacture and fitting of such unusual parts of the human body that the writer of this article lately interviewed one or two of the best-known makers of these extraordinary portions of man's anatomy.

It would seem from what was put before me by these suppliers of really serious defects in the construction of the human frame that the most unusual feature to be missing, from accident or otherwise, is the ear. One firm informed me that, in their time, they must have made some thousands of glass eyes, have manufactured at least hundreds of artificial limbs, and even made four or five pairs of false lips, but they had only once, to their knowledge, made an artificial ear.

Luckily they were just finishing this curious article when I called, and so I was shown all the models and processes gone through in connection with its manufacture. It was required by a gentleman who had, in a shooting accident some time before, had the misfortune to lose the lower half of his right ear. After the necessary operation, he was for some time without that portion of his ear which had been shot away, and without any substitute for it. It was only when a personal friend

suggested to him that he should try to get an imitation lower half fitted, so as to take away any noticeable deformity, that he gave any such thought to the matter.

It was thus that the firm in question came to be commissioned to manufacture for the gentleman an artificial ear, or rather the lower half of one. The mode of procedure in the case was as follows: The subject to be operated upon having been placed in an easy position, and required to keep perfectly still, a plaster-cast (that is, a model in plaster of Paris) was taken of the remaining portion of the right ear and also one of the perfect left ear. Such a cast as this takes—so I was told—about half an hour to make. By a special process of the maker's, the cast is removed from the ear without the necessity of chipping generally resorted to in taking off such casts.

Into the plaster-cast model molten wax is poured and allowed sufficient time to set thoroughly. Then it is taken out, and from this wax model, with the model also of the whole left ear before him, a clever workman proceeds to construct the real model of the missing part, exactly to correspond in size and appearance with the remaining portion, so as to make a right ear as perfect as possible. This model, to be used, is made from a special secret composition of a metallic nature which is extraordinarily light and pliable. When this workman has done his model, it is passed on to another man, who undertakes the enamelling of it, and so beautifully manipulates his colouring of the artificial ear that it is difficult to tell that the colour is not natural.

By the time he has finished with it, the

manufactured lower portion of the ear is ready for being fastened to the upper part yet remaining on the gentleman's head. This is cleverly effected by special devices of the maker. A ring of the same metallic composition as that of which the model is composed is made to fit round the top of the real half of the ear in such a way as not to show in the least, and a flesh-coloured small funnel also fits into the tube of the real ear, and so holds the lower part

firm in its place. It is difficult to explain exactly in print how perfectly the whole acts; but the writer can testify that the gentleman possessing this wonderfully modelled ear can be amongst an ordinary roomful of people without anyone not in the secret having an idea of his possessing any but real ears like themselves, so splendidly

does the model fit and serve its purpose. In addition to this, the possessor can take it off and put it on in a few seconds, just at his pleasure, without the slightest difficulty.

I was informed that two months were required to make an ear of this kind, from start to finish, and that when it was done, its whole cost was from five to six pounds. As an idea of its lightness, I may say that I saw it weighed, and it turned the scale at less than half an ounce.

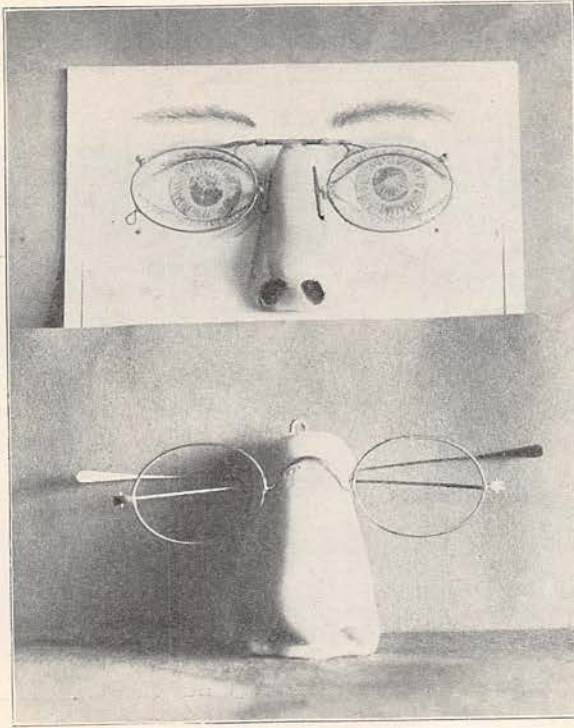
After many inquiries at several places in England which make a speciality of

artificial parts of the human body, I have good reason for believing that this is probably the only artificial ear ever made in this country, at any rate in such a form.

Of noses there are several imitation ones doing duty on faces that we meet on our daily rounds through the streets. Many have been injured or destroyed from accidents, not by any means always from careless handling of firearms. Others, however, have been lost in greater or lesser

part by that fell scourge, the cancerous growth, so well known to the medical world. The unlucky sufferers have then had recourse to the latest skill of science to make for them as excellent artificial noses as possible, and they are astonished to find what can be done in this respect.

In every case where an imitation nose or part of one is required, a



ARTIFICIAL NOSES.

model is made of the whole nose of the subject, just as in the case of the ear mentioned above, and from this an imitation nose is made in a similar fashion. Only the nose is always made as a whole, not as a part; for this is necessary, not only for the look of the organ, but owing to the method of attachment, this being now generally done by the wearing of eyeglasses, which, coming over it, are so adjusted as to keep the artificial respiratory organ in its place. So thin and close-fitting is this nasal cover,

and so exactly coloured to match the rest of the wearer's face, that it is in most cases simply impossible to tell from a casual glance that one is worn at all by the possessor of it.

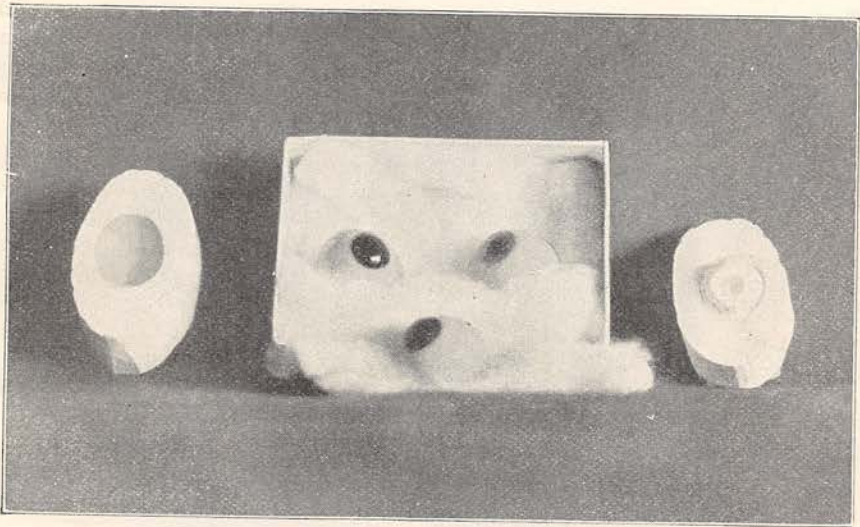
The cost of a nose made in a similar style to the ear spoken of above, and of the same material is about £5, and it very often can be made in a few days, if necessary. Artificial noses are, I found, much more common than anybody would suppose, one firm acknowledging that they made, as a rule, about one a week.

Only one place at which I inquired had ever made artificial lips. They confessed

case as in the other. On my asking how artificial lips were kept in position, I was told that it was by means of attachments to the inside of the mouth, and the teeth.

The most common of all artificial organs is certainly the eye. To learn the number of people who are going about the world "looking" at you with a glass eye is simply astounding. "And then, too," as the Irishman would say, "the glass eye is not made of glass at all nowadays; it is made of enamel—metallic enamel."

All the various makers whom I visited in the course of preparing this article told me that they kept in stock thousands of eyes



ARTIFICIAL EYES: WITH MOULDS IN WHICH THEY WERE SHAPED.

that in their experience of some half a century they had, on probably four occasions, tackled the delicate task of providing imitation lips for persons who needed them. But as to the reasons which had made these people require such curious facial adornments the manager of this firm could tell me nothing. He supposed it might be due to some disease having attacked that part of the face, and that was the only satisfactory theory he could advance.

Lips done to order are made mostly in the same way as noses, and cost little less, sometimes rather more, for there is just as much care and skill required in the one

so made, of every size, shape, and colour. One thing which makes the demand for eyes greater than for any other kind of false organ of the human body is the fact that an artificial eye only lasts about a year—often only nine months—owing to the action of the tears upon it. And another reason for their production in such quantities is that at regular intervals the man who begins to wear such an imitation eye has to have one of a larger size.

When he begins, after losing his own orb of vision—generally from some accident—the socket is nearly closed, and so only a small enamel eye can be fitted into it at first. As this causes the socket to enlarge

somewhat, a little later a larger eye is fitted in, and so on till the wearer has got one the same size as his real one.

As a rule, it takes five or six persons to make such an eye. A globe is formed of the enamel, and then the eye-colouring is burnt into this by specially clever workers. This colouring may be of almost any shade generally found in eyes. Afterwards the globe has to be cut and shaped to the pattern given, and the edges are then "annealed" or fired to prevent breaking. Last of all the whole eye is polished.

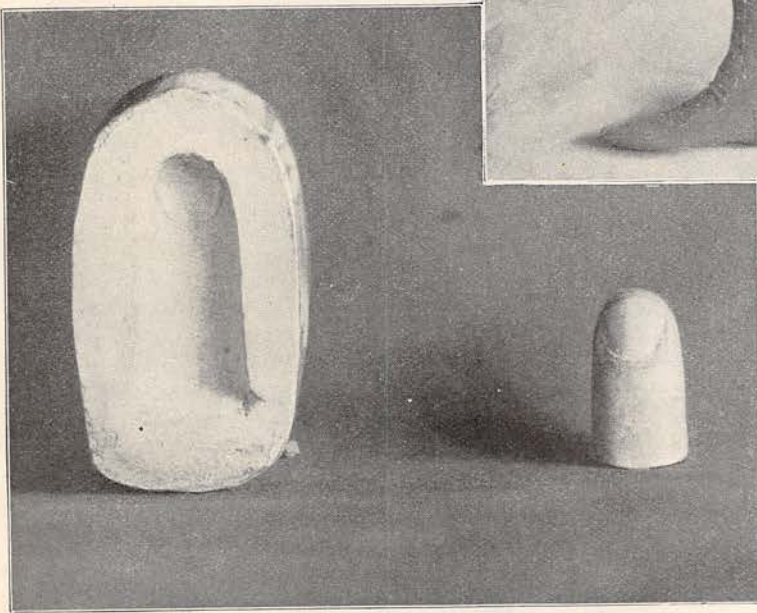
One very curious thing I was told about these artificial eyes—namely, that, when fitted, they will often show themselves susceptible to the motion of the socket, and so will turn in various directions just like a real eye. From 7s. 6d. to about £1 10s. is the price of eyes of this kind, according to their quality. As to the time necessary to

body, looked at from the artificial point of view, next to the ear, or even above it, is the breast. I only found two firms which



OLD-FASHIONED  
ARTIFICIAL  
LEG.

undertook this kind of work. The process is very similar to that of making imitation noses or ears, but there are so many things to take into account in this spe-



ARTIFICIAL FORE-FINGER AND MOULD, FROM AMPUTATED FINGER.

ciality that I was told the average price charged for this kind of work was not under six pounds. The dexterity and skill with which the operation is conducted is equal to, if not greater, than that necessitated in

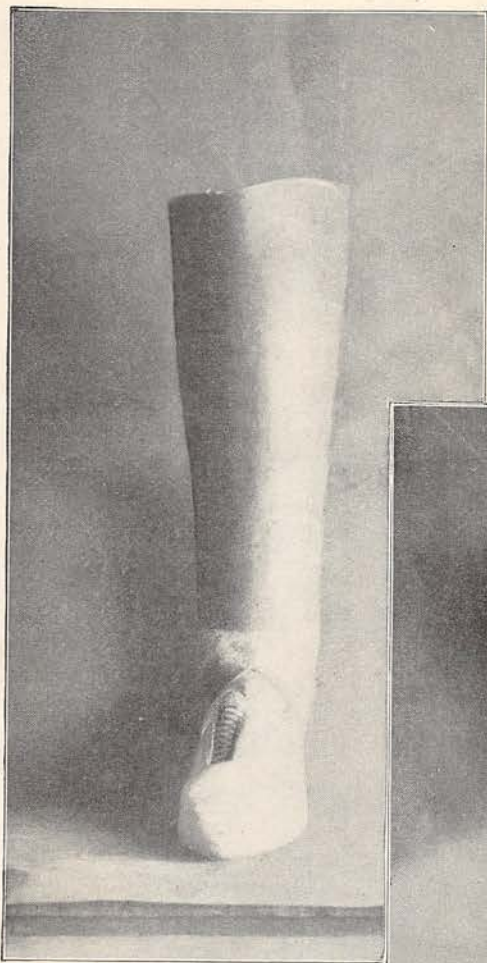
make one, it could be done in a day, if needed, but as workmen are ever at the job, it is quite a different thing from making an artificial ear.

The most expensive part of the human

other instances of human patchwork, and the patient is thereby very often enabled to enjoy life and society in a manner

round the thigh, being attached to the latter and to the body by a brace and belt. Though such legs are by some noted firms kept in stock, yet the best makers prefer to manufacture the leg to order, as then they can make a plaster-cast, and proceed as was explained before. In this way they can fit the leg perfectly to the remaining stump; and as men's thighs differ in many ways, there is much more likelihood of real comfort being got from a leg thus specially made than from one bought ready-made.

Artificial legs, thus produced to order, take about a week or ten days



METHOD OF MAKING PLASTER CAST OF AMPUTATED LEG.

undreamed of in days of rougher craftsmanship. So perfect is the result that it is almost impossible to detect the secret. In fact, except one knew about the matter, it is doubtful if one would ever find out, so close is the resemblance to the real thing.

The days of the good old wooden leg, clumsy and heavy, are now past, except for the very poor. The famous "pin-leg," noted in fiction and fact, is now superseded by the light model, with motion at the knees and toes, and fitted



THE FINISHED ARTIFICIAL LEG, FROM THE CAST.

to make, and cost from thirteen guineas upwards. It is astonishing, however, what their wearers can do with them. Only the

other day the writer saw a well-known member of the aristocracy, who is the possessor of such a leg, run along the Strand and jump on a 'bus while it was in motion. Nobody in the world who did not know would ever have guessed that he had not two real lower limbs.

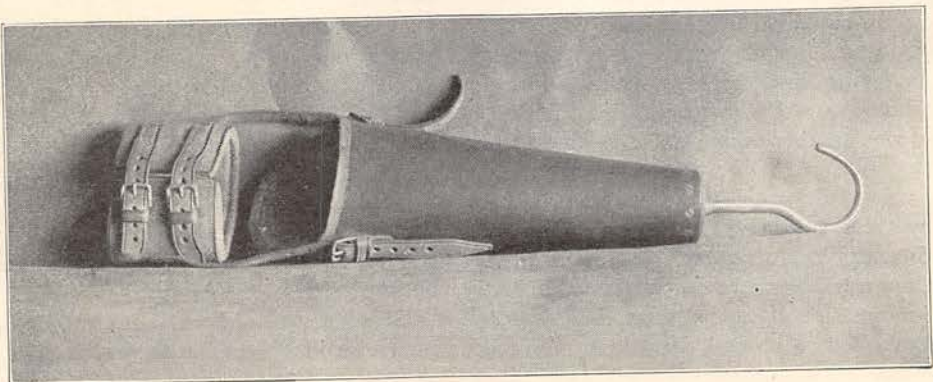


LATEST STYLE OF ARTIFICIAL ARM AND HAND (CAN GRASP AND LIFT A GLASS).

Hands and arms, if false, are generally made of wood, with movable fingers. If one finger is left, or especially the thumb, it is of the greatest assistance to the maker in planning the working of the artificial hand, as it at once gives him a leverage for managing the movement of the fingers. The artificial arm is fastened to the shoulders by leathern straps, and the hand is similarly attached to the wrist. Sometimes the arm is made of leather in part, as well as wood. The chief aim of the maker is to produce a limb which shall be as light as possible, and give as much movement as can be, resembling the ordinary movement of the true hand or arm.

So perfectly has this been carried out that hands are often made which weigh no more than nine or ten ounces. The cost of such an upper limb may be anything from seven to ten guineas.

It will be seen from these remarks on artificial parts of the human body that the making of such has become as nearly perfect as it seems possible to be. Many firms are totally engaged in the work. For the photos accompanying this article, and their courteous information on many points relating to it, we wish to express our indebtedness to Messrs. Rein and Co., the well-known firm of the Strand.



OLD-FASHIONED ARTIFICIAL ARM.