

THE ARTIFICIAL MAN.

[From "Once a Week."]



WHILE lounging the other day in a medical library, I chanced to take up a little volume, the odd tittle of which led me to dip into it—"Biggs on Artificial Limbs." I had heard of the skillful, anatomical mechanician of Leicester Square, whom the Queen delighted to honor with commissions for cunningly devised limbs for wounded soldiers during the Crimean war; but I never realized to myself the art with which man can eke out the defects of nature until I glanced over this little volume; the contents of which so struck me, that I was determined to see for myself how far that cunning biped man can simulate the handiwork of our great mother. I was received courteously, and on explaining the nature of my errand, an assistant was sent through the different workshops to satisfy my curiosity.

A very few minutes' conversation with my conductor left the impression upon my mind that, instead of having any profound respect for Nature, he looked upon her as sometimes rather in the way than otherwise; for, happening to ask him playfully, as a kind of starting question, with how small a modicum of humanity he could manage to work, "Sir," said he, very seriously, "we only want the vital principle; give us nervous centres and sound viscera and we find all the rest."

"But," said I, not prepared for this liberal offer, "suppose a man had only three inches of stump?"

"Three inches of stump!" he replied, contemptuously, "with that allowance we could anything. There is," said he, "somewhere in Ireland, a gentleman born without limbs, who goes out hunting in a clothes-basket strapped on his horse's back. If we could only get hold of him, his friends, in six weeks, would not know him."

An inspection of my friend's ateliers, certainly, went far to justify the confident spirit in which his assistant spoke. I soon found out that there are first, second, and third-class limbs, however, as of everything else.

"What!" said I, "do you make banisters as well as legs," pointing to a shelf-full neatly turned and painted.

"Banisters! my dear sir," he replied a little hurt, "these are our Chelsea pensioners!"

And on a closer examination such they proved to be. Here was a hard third-class fact, simple and unadorned.

"And these buckets?" I rejoined, pointing to some scores of hollow wooden cones placed one within the other.

"Bucket's the word!" said he, reaching one down, and screwing a banister into its lower end. "These are our Chelsea pensioners complete. But this is nothing to what they have in store at the Chelsea Hospital. During the war we could not make them fast enough, and they were obliged to apply to the mop-makers. Fact," said he, seeing the surprise in our eyes—"and arms, too! You should see the rows and rows stored on the shelves; their hooks hanging out like so many umbrellas. Government can only afford hooks for soldiers and sailors; but officers who are not able to pay, can get new legs and arms of the very best construction at the expense of a grateful nation, by simply applying at the Horse Guards."

All the while this serio-comic conversation was going on, a workman in the coolest possible manner was working away at a most delicate little leg that would have come off second best in the "Judgment of Paris"—a faultless Balmoral boot, and the daintiest silk stocking covered proportions that Madame Vestris might have envied.

These," said my companion, "are some of our first-class goods. Would you like to see the mechanism?—Goodge, pull down the stocking." With that the workman bared the limb, whilst my companion put it through

its paces. "This, you see, is our patent knee-cap and patella, and this the new vulcanized india-rubber tendon-achilles; here in the instep, you will observe a spiral spring elevating the toes, and if you will just observe (opening a little trap-door in the back of the calf), here is an ingenious contrivance by which the bending of the knee, elevates the front part of the foot, thus allowing it full play to swing forward clear of the ground."

Certainly it was an admirable contrivance.

"And can a man or woman progress easily with that arrangement?" said I.

"Do you know Lady —?" said he.

"Yes."

"Nothing the matter there?" he rejoined, interrogatively.

I was obliged to confess, not to my knowledge.

"That's her spare leg nevertheless," he replied triumphantly.

"Spare leg! What do you mean?"

"Lord bless you! Look into that cupboard. I have the spare members of half the town there duly labeled. Things will go wrong with the best conducted limbs; and to save difficulties we keep duplicates which can be applied at the shortest notice. A gentleman, whom we will call Mr. Smith, once lost the pin out of his knee-joint, and sent here for his off-leg. A young lad up from the country sent him another Mr. Smith's box containing an arm—very awkward."

"Will you allow me?" said I, trying to read the names on the boxes.

"Certainly not," said he, shutting the door and turning the key: "this is our Bluebeard's cupboard, and I wouldn't allow even my wife to peep. But come and look at our hands."

There they were—some clenched, some spread out, some in the act of holding, some gloved, and displayed like Vandykes, as if to challenge attention.

"Now, what will they do?" said I, almost doubtful whether the clenched fist wouldn't strike.

"Do anything," said he: "by means of the hook inserted in the palm, it can lift or hold the reins, almost as well as the natural member. Observe the beautiful operation of the spring thumb imitating the grand privilege of man and monkey; by means of which it can grasp a fork or lightly finger a toothpick."

"Do you supply fingers and such small gear?" I inquired.

"Fingers, toes, noses, lips—we take them as they come. A gentleman with but one finger on his left hand came to us the other day, and asked to have the compliment made up. We fitted on the rest and attached them by means of a signet ring to the remaining finger—movement perfect; you should see him pass his fingers through his hair—natural as life. The hand is a wonderful thing—that beats me—legs are mere A B C, but the hand!—Here," said he, recovering from his momentary admiration of nature, "here is a drawing of a pretty thing. A Hudson's Bay trapper had his hand bitten off by a bear, and come to us to replace it. 'Do you want something really useful?' said I. 'Yes,' said he. So I made him this dagger, fitting into his arm-stump socket. He sleeps in his dagger and finds it particularly handy when there are any bears about. Look at the action of this spring and ratchet-elbow: you have only to touch the little button in the elbow, and the fore-arm closes as natural as life. Who would wear an empty sleeve when a member like this can be obtained? We always recommend our arm and hand patients to wear a cloak neatly folded over it, as it prevents any attempt at hand-shaking. We don't warrant the shake—the touch isn't quite natural."

"But how about the more delicate operations—eyes and noses?" I inquired.

"Oh, we do any feature at a moment's notice. Noses, for instance: the best way is to bring a patient to the modeler, who first designs the missing member in clay after a portrait or from instructions; from this an india-rubber cast is taken, to which we fit on a pair of spectacles, to break the flesh line; and when the superstructure is complete, an artist puts on the complexion."

"And eyes?" I added, deeply interested.

"Eyes we do not do so much in," he added apologetically. "There is M. Boisenou, from Paris, who travels with all the eyes of Europe—from the black of Andalusia to the blue of Scandinavia."

"But how are they applied?"

"Easily as possible," he added, pulling out a drawer and displaying the upturned gaze of winkless scores. "Let me see," said he, rapidly taking up eye after eye, and comparing them with my own. "Light grey—that's a good match. Now, with this little ivory jenny we prize the eye into its socket; the muscle being left, we get good motion, and the deception is perfect. A lady once closed her good eye, and went up to the glass to see her false one. There is one little drawback, however: you can wipe away a cold tear perfectly, but as the eyeball itself is not sensitive, the flies sometimes walk about upon it, which looks odd."

"You must see a vast deal of maimed humanity?" said I.

"And vanity, too," he replied. "But I am afraid I must leave you, as I see there is a leg-below-knee, two toes, and an arm waiting to see me in the waiting-room, and there in the cab—we are near levee-day, I suppose—is the Honorable Augustus Witherdman calling for his calves."

As I walked homeward, my head full of the subject I had been dwelling upon, the "artificial man" seemed to meet me in detail everywhere. There were his teeth grinning at me in glass cases outside the dentists' shops—teeth in sets, with the new patent elastic india-rubber gums, warranted equal to the living tissue, without the disadvantage of growing gum-boils. How many fair dames smile at us, whose flashing ivories have lain for years on continental battle-grounds or, perhaps under the verdant churchyard sod at home! The hairdressers' windows, again, bloomed with deception. Here, indeed, art has made a stride. The old stereotyped form of wig, with its sprawling wavy curl of glossy black across the forehead, flanked with the frothy bosses of curls on either side, leaving the hard skin line to disclose the bungling hand of man—this is gradually giving place to higher efforts. Mark, for instance, that wig, so puritanical in its plainness, with a few grey hairs artfully cast in; see, again, what efforts have been made with the net parting, to simulate the thin rooting of the hair: and, again, how its setting-on gradually fines off towards the forehead. And what shall we say to those long coils of gold which hang in such pendulous richness: these are the contributions of the poor German peasant girls to London fashionable life. Does my Amelia eke out her natural tresses with these shining snakes of glossy hair? Does my maiden-aunt Bridget hide the gradually widening parting of her once raven locks with that platted coronet? What member is there in this artful age that we can depend upon as genuine? what secret bodily defect that we particularly desire to keep to ourselves that that wicked *Times* does not show up in its advertising sheet and tell us how to tinker?

And if the individual can thus craftily be built up, imagine, good reader, the nightly dissolution. Picture your valet taking off both your legs (such things are often done), carefully placing away your arm, disengaging your wig, easing you of your glass eye, washing and putting by your masticators, and, finally, helping the bare vital principle into bed, there to lie up in ordinary, like a dismantled hulk, for the rest of the night! In these latter days we are, indeed, sometimes, as the Psalmist said, fearfully and wonderfully made; and, like the author of "Frankenstein," we may tremble at our creations. A. W.

FLY-WHEELS TO SMOKE-BLOWERS.—We have received some letters from a working-man, pointing out what he considers errors in the application of heavy fly-wheels to hand-blowing machines:—"Almost every smith says that these machines are of no use unless they are worked by steam power. I say they are, if the driving-wheel is as light as possible for that purpose. A boy, six years of age, can work one that I have arranged; but it takes a strong man to work the heavy one to produce the same effect. I have tried them both, and I know this to be a fact. Just fancy a man having to pull 3 cwt. of wheels round, and another man only having 28 pounds of wheels to pull round. It puts me in mind of two equal men having to row a match, one man's boat to be 3 cwt., and the other man's to be 28 pounds."—*London Engineer*.

The British government has granted a pension of £50 per annum to the three daughters of the late Mr. Archer, the inventor of the collodion process in photography.