

Fashion in deformity : [a discourse] / by W.H. Flower.

Contributors

Flower, William Henry, 1831-1899.
Doran, Alban H. G. 1849-1927
Royal College of Surgeons of England

Publication/Creation

[London] : Printed by William Clowes and Sons, [1880]

Persistent URL

<https://wellcomecollection.org/works/cuwytcyu>

Provider

Royal College of Surgeons

License and attribution

This material has been provided by This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



FASHION IN DEFORMITY.

✓ A DISCOURSE

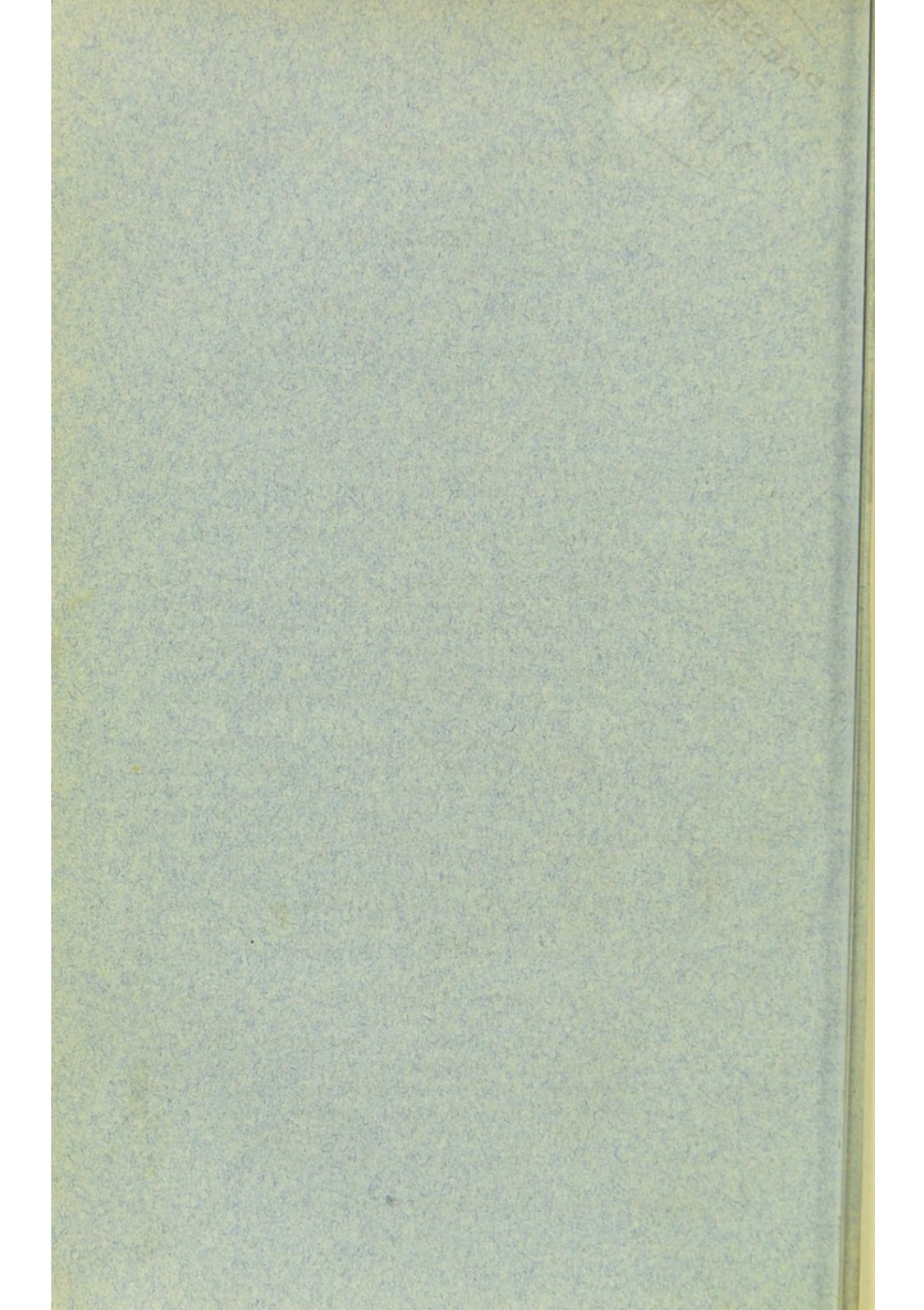
BY

PROFESSOR W. H. FLOWER, LL.D. F.R.S. P.Z.S. &c.

DELIVERED AT THE

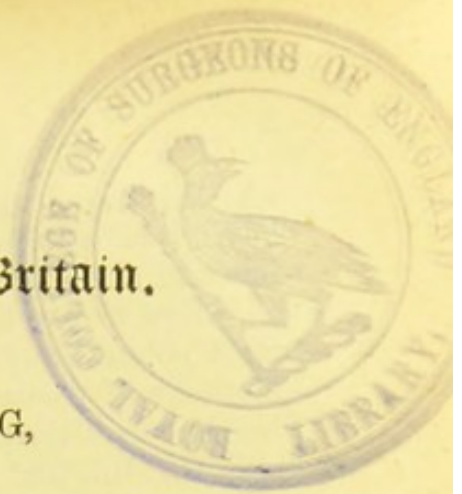
ROYAL INSTITUTION, FRIDAY, MAY 7, 1880.

Sept 6



PRESENTED
by the
AUTHOR.

8



Royal Institution of Great Britain.

WEEKLY EVENING MEETING,
Friday, May 7, 1880.

THOMAS BOYCOTT, M.D. F.L.S. Vice-President, in the Chair.

WILLIAM HENRY FLOWER, LL.D. F.R.S. P.Z.S. &c.

Hunterian Professor of Comparative Anatomy, Royal College of Surgeons of
England.

Fashion in Deformity.

I HAVE to ask your attention this evening to certain outward manifestations of a propensity common to human nature in every aspect in which we are acquainted with it—the most primitive and barbarous, and the most civilized and refined—but one which is, as far as I know, peculiar to human nature.

I shall speak of *deformity* in the sense of alteration of the natural form of any part of the body, and those cases of voluntary deformation will be considered which are performed, not by isolated individuals, or with special motives, but by considerable numbers of members of a community in imitation of one another—in fact, according to *fashion*, “that most inexorable tyrant to which the greater part of mankind are willing slaves.”

Fashion is now often associated with change, but in more primitive communities fashions of all sorts are more permanent than with us; and in all communities such fashions as those I am now speaking of are, for obvious reasons, far less likely to be subject to the fluctuations of caprice than those affecting the dress only, which, even in Shakespeare's time, changed so often that “the fashion wears out more apparel than the man.” Alterations once made in the form of the body cannot be discarded or modified in the lifetime of the individual, and therefore as fashion is intrinsically imitative, such alterations have the strongest possible tendency to be reproduced generation after generation.

The origins of these fashions are mostly lost in obscurity, all attempts to solve them being little more than guesses. Some of them have become associated with religious or superstitious observances, and so have been spread and perpetuated; some have been vaguely thought to be hygienic in motive; most have some relation to conventional standards of improved personal appearance; but whatever their origin, the desire to conform to common usage, and not to appear singular, is the prevailing motive which leads to their continuance.

The most convenient classification of these customs will be one

which is based upon the part of the body affected by them, and I will begin with the more superficial and comparatively trivial—the treatment of the hair and other appendages of the skin.

Here we are at once introduced to the domain of fashion in her most potent sway. The facility with which hair lends itself to various methods of treatment has been a temptation too great to resist in all known conditions of civilization. Innumerable variations of custom exist in different parts of the world, and marked changes in at least all more or less civilized communities have characterized successive epochs of history. Not only the length and method of arrangement, but even the colour of the hair, is changed in obedience to caprices of fashion. In many of the islands of the Western Pacific, the naturally jet-black hair of the natives is converted into a tawny brown by the application of lime, obtained by burning the coral found so abundantly on their shores; and not many years since similar means were employed for producing the same result among the ladies of Western Europe—a fact which considerably diminishes the value of an idea entertained by many ethnologists, that community of custom is evidence of community of origin or of race.

Notwithstanding the painful and laborious nature of the process, when conducted with no better implements than flint knives, or pieces of splintered bone or shell, the custom of keeping the head closely shaved prevails extensively among savage nations. This, doubtless, tends to cleanliness, and perhaps comfort, in hot countries; but the fact that it is in many tribes practised only by the women and children, shows that these considerations are not those primarily engaged in its perpetuation. In some cases, as among the Fijians, while the heads of the women are commonly cropped or closely shaved, the men cultivate, at great expense of time and attention, a luxuriant and elaborately arranged mass of hair, exactly reversing the conditions met with in the most highly civilized nations.

In some regions of Africa it is considered necessary to female beauty carefully to eradicate the eyebrows, special pincers for the purpose forming part of the appliances of the toilette; while the various methods of shaving and cutting the beard among men of all nations are too well known to require more than a passing notice. The treatment of finger nails, both as to colour and form, has also been subject to fashion; but the practical inconveniences attending the inordinate length to which these are permitted to grow in some parts of the east of Asia, appears to have restricted the custom to a few localities.

If time allowed, the exceedingly wide-spread custom of tattooing the skin might be here considered, as a result of the same propensity as that which produces the other more serious deformations, now to be spoken of; but it will be as well to pass at once to these.

The nose, the lips, and the ears have in almost all races offered great temptations to be used as foundations for the display of ornament, some process of boring, cutting, or alteration of form being

necessary to render them fit for the purpose. When Captain Cook, exactly one hundred years ago, was describing the naked savages of the east coast of Australia,* he says:—"Their principal ornament is the bone which they thrust through the cartilage which divides the nostrils from each other. What perversion of taste could make them think this a decoration, or what could prompt them, before they had worn it or seen it worn, to suffer the pain and inconvenience that must of necessity attend it, is perhaps beyond the power of human sagacity to determine. As this bone is as thick as a man's finger, and between

FIG. 1.



Australian Native, with bone nose-ornament.

five and six inches long, it reaches quite across the face, and so effectually stops up both the nostrils that they are forced to keep their mouths wide open for breath, and snuffle so when they attempt to speak that they are scarcely intelligible even to each other. Our seamen, with some humour, called it their spritsail-yard; and indeed it had so ludicrous an appearance, that till we were used to it we found it difficult to refrain from laughter."

Eight years later, on his visit to the north-west coast of America, Captain Cook found precisely the same custom prevailing among the natives of Prince William's Sound, whose mode of life was in most other respects quite dissimilar to that of the Australians, and who belong ethnologically to a totally different branch of the human race.

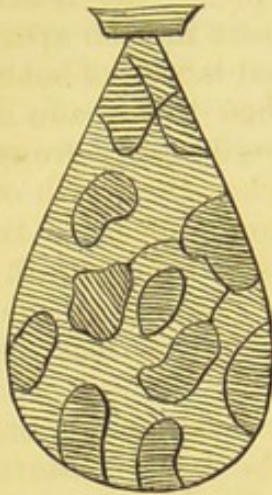
In 1681, Dampier† thus describes a custom which he found exist-

* 'First Voyage,' vol. ii. p. 633.

† 'Voyage Round the World,' ed. 1717, vol. i. p. 32.

ing among the natives of the Corn Islands, off the Mosquito Coast, in Central America :—" They have a Fashion to cut Holes in the Lips of the Boys when they are young, close to their Chin, which they keep

FIG. 2.



open with little Pegs till they are fourteen or fifteen years old ; then they wear Beards in them, made of Turtle or Tortoise-shell, in the Form you see in the Margin. The little Knotch at the upper end they put in through the Lip, where it remains between the Teeth and the Lip ; the under Part hangs down over their chin. This they commonly wear all day, and when they sleep they take it out. They have likewise Holes bored in their Ears, both Men and Women, when young, and by continual stretching them with great Pegs, they grow to be as big as a mill'd Five-shilling Piece. Herein they wear Pieces of Wood, cut very round and smooth, so that their Ear seems to be all Wood, with a little Skin about it."

It is a remarkable thing that an almost exactly similar custom still prevails among a tribe of Indians inhabiting the southern part of

FIG. 3.



Botocudo Indian ; from Bigg-Wither's ' Pioneering in South Brazil ' (1878).

Brazil—the Botocudos, so called from a Portuguese word meaning a plug or stopper. Among these people the lip-ornament consists of a conical piece of hard and polished wood, frequently weighs a quarter of

a pound, and drags down, elongates, and everts the lower lip, so as to expose the gums and teeth, in a manner which to our taste is hideous, but with them is considered an essential adjunct to an attractive and correct appearance.

In the extreme north of America, the Eskimo "pierce the lower lip under one or both corners of the mouth, and insert in each aperture a double-headed sleeve-button or dumb-bell-shaped labret, of bone, ivory, shell, stone, glass, or wood. The incision when first made is about the size of a quill, but as the aspirant for improved beauty grows older, the size of the orifice is enlarged until it reaches the width of half to three-quarters of an inch." * These operations appear to be practised only on the men, and are supposed to possess some significance other than that of mere ornament. The first piercing of the lip, which is accompanied by some solemnity as a religious feast, is performed on approaching manhood.

But the people who have carried these strange customs to the greatest excess are the Thlinkeets, who inhabit the south-eastern shores of Alaska.† "Here it is the women who, in piercing the nose and ears, and filling the apertures with bones, shells, sticks, pieces of copper, nails, or attaching thereto heavy pendants, which drag down the organs and pull the features out of place, appear to have taxed their inventive powers to the utmost, and with a success unsurpassed by any nation in the world, to produce a model of hideous beauty. This success is achieved in their wooden lip-ornament, the crowning glory of the Thlinkeet nation, described by a multitude of eye-witnesses. In all female free-born Thlinkeet children, a slit is made in the under lip, parallel with the mouth, and about half an inch below it. A copper wire, or a piece of shell or wood, is introduced into this, by which the wound is kept open and the aperture extended. By gradually introducing larger objects the required dimensions of the opening are produced. On attaining the age of maturity, a block of wood is inserted, usually oval or elliptical in shape, concave on the sides, and grooved like the wheel of a pulley on the edge in order to keep it in place. The dimensions of the block are from two to six inches in length, from one to four inches in width, and about half an inch thick round the edge, and it is highly polished. Old age has little terror in the eyes of a Thlinkeet belle; for larger lip-blocks are introduced as years advance, and each enlargement adds to the lady's social status, if not to her facial charms. When the block is withdrawn, the lip drops down upon the chin like a piece of leather, displaying the teeth, and presenting altogether a ghastly spectacle. The privilege of wearing this ornament is not extended to female slaves."

In this method of adornment the native Americans are, however, rivalled, if not eclipsed, by the negroes of the heart of Africa.

* H. H. Bancroft, 'Native Races of the Pacific States of North America,' vol. i. 1875.

† See Bancroft, *op. cit.* vol. i. for numerous citations from original observers regarding these customs.

"The Bongo women (says Schweinfurth*) delight in distinguishing themselves by an adornment which to our notion is nothing less than a hideous mutilation. As soon as a woman is married, the operation commences of extending her lower lip. This, at first only slightly bored, is widened by inserting into the orifice plugs of wood, gradually increasing in size, until at length the entire feature is enlarged to five or six times its original proportions. The plugs are cylindrical in form, not less than an inch thick, and are exactly like the pegs of bone or wood worn by the women of Musgoo. By this means the lower lip is extended horizontally till it projects far beyond the upper, which is also bored and fitted with a copper plate or nail, and now and then by a little ring, and sometimes by a bit of straw, about as thick as a lucifer-match. Nor do they leave the nose intact; similar bits of straw are inserted into the edges of the nostrils, and I have seen as many as three of these on each side. A very favourite ornament for the cartilage between the nostrils is a copper ring, just like those that are placed in the noses of buffaloes and other beasts of burden for the purpose of rendering them more tractable. The greatest coquettes among the ladies wear a clasp, or cramp, at the corners of the mouth, as though they wanted to contract the orifice, and literally to put a curb upon its capabilities. These subsidiary ornaments are not, however, found at all universally among the women, and it is rare to see them all at once upon a single individual; the plug in the lower lip of the married women is alone a *sine quâ non*, serving as it does, for an artificial distinction of race."

The slightest fold or projection of the skin furnishes an excuse for boring a hole, and inserting a plug or a ring. There are women in the country whose bodies are pierced in some way or other in little short of a hundred different places, and the men are often not far behind in the profusion with which this kind of adornment is carried out.

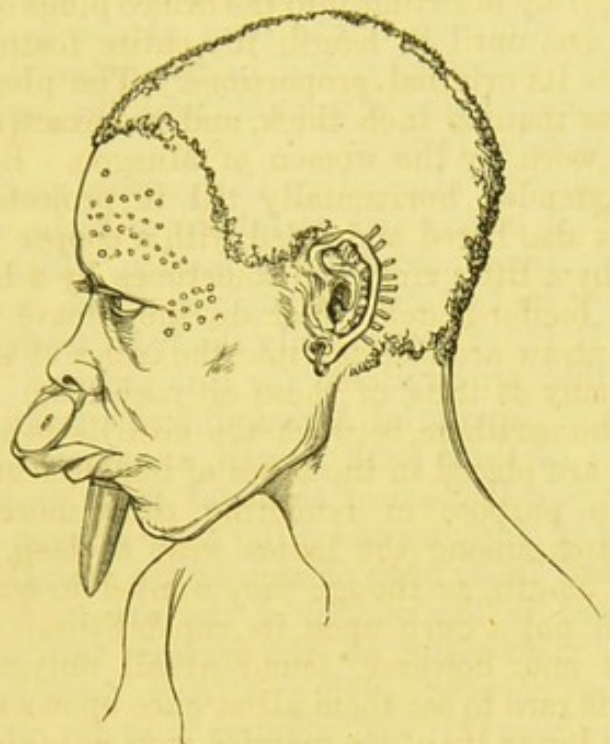
"The whole group of the Mittoo exhibits peculiarities by which it may be distinguished from its neighbours. The external adornment of the body, the costume, the ornaments, the mutilations which individuals undergo—in short, the general fashions—have all a distinctive character of their own. The most remarkable is the revolting, because unnatural, manner in which the women pierce and distort their lips; they seem to vie with each other in their mutilations, and their vanity in this respect, I believe, surpasses anything that may be found throughout Africa. Not satisfied with piercing the lower lip, they drag out the upper lip as well for the sake of symmetry.† . . . Circular plates, nearly as large as a crown piece, made variously of quartz, of ivory, or of horn, are inserted into the lips that have been stretched by the growth of years, and then often bent in a position

* 'Heart of Africa,' vol. i. p. 297.

† The mutilation of both lips was also observed by Rohlfs among the women of Kadje, in Segseg, between Lake Tsad and the Benwe.

that is all but horizontal; and when the women want to drink they have to elevate the upper lip with their fingers, and to pour the draught into their mouth.

FIG. 4.



Loobah Woman; from Schweinfurth's 'Heart of Africa.'

"Similar in shape is the decoration which is worn by the women of Maganya; but though it is round, it is a ring and not a flat plate; it is called 'pelele,' and has no object but to expand the upper lip. Some of the Mittoo women, especially the Loobah, not content with the circle or the ring, force a cone of polished quartz through the lips as though they had borrowed the idea from the rhinoceros. This fashion of using quartz belemnites of more than two inches long, is in some instances adopted by the men."

The traveller who has been the eye-witness of such customs may well add, "Even amongst these uncultured children of nature, human pride crops up amongst the fetters of fashion, which, indeed, are fetters in the worst sense of the word; for fashion in the distant wilds of Africa tortures and harasses poor humanity as much as in the great prison of civilization."

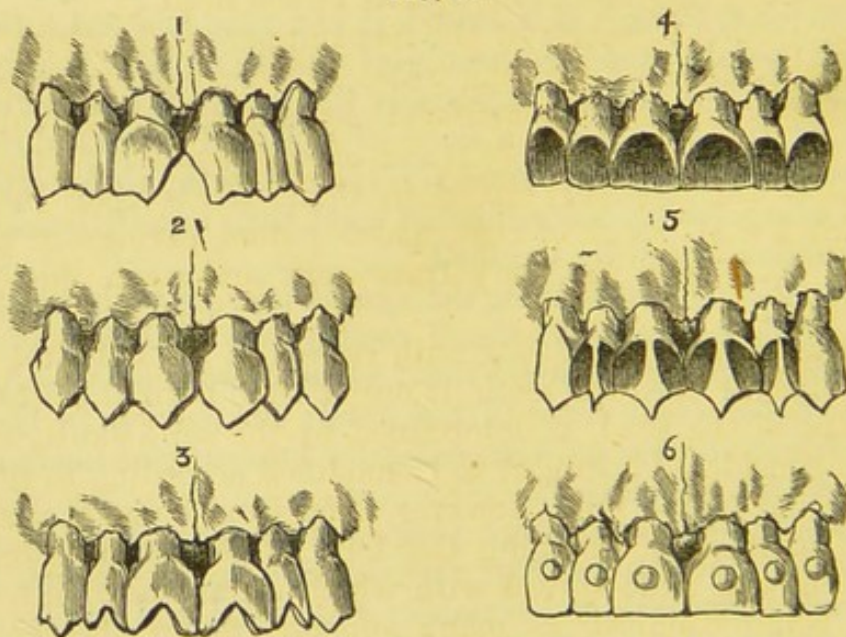
It seems, indeed, a strange phenomenon that in such different races, so far removed in locality, customs so singular—to our ideas so revolting and unnatural, and certainly so painful and inconvenient—should either have been perpetuated for an enormous lapse of time, if the supposition of a common origin be entertained, or else have developed themselves independently.

These are, however, only extreme or exaggerated cases of the almost universal custom of making a permanent aperture through

the lobe of the ear for the purpose of inserting some adventitious object by way of adornment, or even for utility, as in the man of the Island of Mangea, figured in Cook's Voyages, who carries a large knife through a hole in the lobe of the right ear. Among ourselves, the custom of wearing earrings still survives, even in the highest grades of society, although it has been almost entirely abandoned by one-half of the community, and in the other the perforation is reduced to the smallest size compatible with the purpose of carrying the ornament suspended from it.

The teeth, although allowed by the greater part of the world to retain their natural beauty and usefulness of form, still offer a field for artificial alterations according to fashion, which has been made use of principally in two distinct regions of the world and by two distinct races. It is, of course, only the front teeth, and mainly the upper incisors, that are available for this purpose. Among various tribes of negroes of Equatorial Africa, different fashions of modifying the natural form of these teeth prevail, specimens of which may be found in any large collection of crania of these people. One of the simplest consists of chipping and filing away a large triangular piece from the lower and inner edge of each of the central incisors, so that a gap is produced in the middle of the row in front (Fig. 5, 1). Another fashion is to shape all the incisors into sharp points, by chipping off the corners, giving a very formidable crocodilian appearance to the jaws (2); and another is to file out either a single or a double notch in the cutting edge of each tooth, producing a serrated border to the whole series (3).

FIG. 5.



Upper front teeth altered according to fashion. 1, 2, 3, African; 4, 5, 6, Malay.

■ The Malays, however, excel the Africans, both in the universality and in the fantastic variety of their supposed improvements upon nature. While the natural whiteness of the surface of these organs

is always admired by us, and by most people, the Malays take the greatest pains to stain their teeth black, which they consider greatly adds to their beauty. White teeth are looked upon with perfect disgust by the Dayaks of the neighbourhood of Sarawak. In addition to staining the teeth, filing the surface in some way or other is almost always resorted to. The nearly universal custom in Java is to remove the enamel from the front surface of the incisors, and often the canine teeth, hollowing out the surface, sometimes, but not often, so deeply as to penetrate the pulp cavity (4). The cutting edges are also worn down to a level line with pumice-stone. Another, and less common, though more elaborate fashion, is to point the teeth, and file out notches from the anterior surface of each side of the upper part of the crown, so as to leave a lozenge-shaped piece of enamel untouched; as this receives the black stain less strongly than the parts from which the surface is removed, an ornamental pattern is produced (5). In Borneo a still more elaborate process is adopted, the front surface of each of the teeth is drilled near its centre with a small round hole, and into this a plug of brass with a round or star-shaped knob is fixed (6). This is always kept bright and polished by the action of the lip over it, and is supposed to give a highly attractive appearance when the teeth are displayed.

Perhaps the strange custom, so frequently adopted by the natives of Australia, and of many islands of the Pacific, of knocking out one or more of the front teeth, might be mentioned here, but it is usually associated with some other idea than ornament or even mere fashion. In the former case it constitutes part of the rites by which the youth are initiated into manhood, and in the Sandwich Islands it is performed as a propitiatory sacrifice to the spirits of the dead.

The projection forwards of the front upper teeth, which we think unbecoming, is admired by some races, and among the negro women of Senegal it is increased by artificial means employed in childhood.*

All these modifications of form of comparatively external and flexible parts are, however, trivial in their effects upon the body to those which I shall speak of next, which induce permanent structural alterations both upon the bony framework and upon the important organs within.

Whatever might be the case with regard to the hair, the ears, the nose, and lips, or even the teeth, it might have been thought that the actual shape of the head, as determined by the solid skull, would not have been considered a subject to be modified according to the fashion of the time and place. Such, however, is far from being the case. The custom of artificially changing the form of the head is one of the most ancient and wide-spread with which we are acquainted. It is far from being confined, as many suppose, to an obscure tribe of Indians on the north-west coast of America, but is found, under various modifications, at widely different parts of the earth's surface, and

* Hamy, 'Revue d'Anthropologie,' Jan. 1879, p. 22.

among people who can have had no intercourse with one another. It appears, in fact, to have originated independently, in many quarters, from some natural impulse common to the human race. When it once became an established custom in any tribe, it was almost inevitable that it should continue, until put an end to by the destruction either of the tribe itself, or of its peculiar institutions, through the intervention of some superior force, for a standard of excellence in form, which could not be changed in those who possessed it, was naturally followed by all who did not wish their children to run the risk of the social degradation which would follow the neglect of such a custom. "Failure properly to mould the cranium of her offspring gives to the Chinook matron the reputation of a lazy and undutiful mother, and subjects the neglected children to the ridicule of their young companions, so despotic is fashion."* It is related in the narrative of Commodore Wilkes' United States Exploring Expedition,† that "at Niculuita Mr. Drayton obtained the drawing of a child's head, of the Wallawalla tribe (Fig. 6), that had just been released from its bandages,

FIG. 6.



Flat-headed Indian Child.

in order to secure its flattened shape. Both the parents showed great delight at the success they had met with in effecting this distortion."

Many of the less severe alterations of the form to which the head is subjected are undesigned, resulting only from the mode in which the child is carried or dressed during infancy. Thus habitually carrying the child on one arm appears to produce an obliquity in the form of the skull which is retained to a greater or less degree all through life. The practice followed by nomadic people of carrying their infants fastened to stiff pillows or boards, commonly causes a flattening of the occiput; and the custom of dressing the child's head with tightly fitting bandages, still common in many parts of the Continent, and even used in England within the memory of many living people, produces an elongated and laterally constricted form.‡ In France this is well known, and so common is it in the neighbourhood of Toulouse, that a special form of head produced in this manner is known as the "*déformation Toulousaine*."

Of the ancient notices of the custom of purposely altering the form

* Bancroft, *op. cit.* vol. i. p. 238.

† Vol. iv. p. 388.

‡ After the lecture a gentleman of advanced age showed me a circular depression round the upper part of his head, which he believed had been produced in this manner, as the custom was still prevailing at the time of his birth in the district of Norfolk, of which he was a native.

of the head, the most explicit is that of *Hippocrates*, who in his treatise, 'De Aëris, Aquis et Locis,' about 400 B.C., says,* speaking of the people near the boundary of Europe and Asia, near the *Palus Mæotis* (Sea of Azoff):—"I will pass over the smaller differences among the nations, but will now treat of such as are great either from nature or custom; and first, concerning the *Macrocephali*. There is no other race of men which have heads in the least resembling theirs. At first, usage was the principal cause of the length of their head, but now nature co-operates with usage. They think those the most noble who have the longest heads. It is thus with regard to the usage: immediately after the child is born, and while its head is still tender, they fashion it with their hands, and constrain it to assume a lengthened shape by applying bandages and other suitable contrivances, whereby the spherical form of the head is destroyed, and it is made to increase in length. Thus, at first, usage operated, so that this constitution was the result of force; but in the course of time it was formed naturally, so that usage had nothing to do with it."

Here, Hippocrates appears to have satisfied himself upon a point which is still discussed with great interest, and still not cleared up—the possibility of transmission by inheritance of artificially produced deformity. Some facts seem to show that such an occurrence may take place occasionally, but there is an immense body of evidence against its being habitual.

Herodotus also alludes to the same custom, as do, at later dates, Strabo, Pliny, Pomponius Mela, and others, though assigning different localities to the nations or tribes they refer to, and also indicating variations of form in their peculiar cranial characteristics.

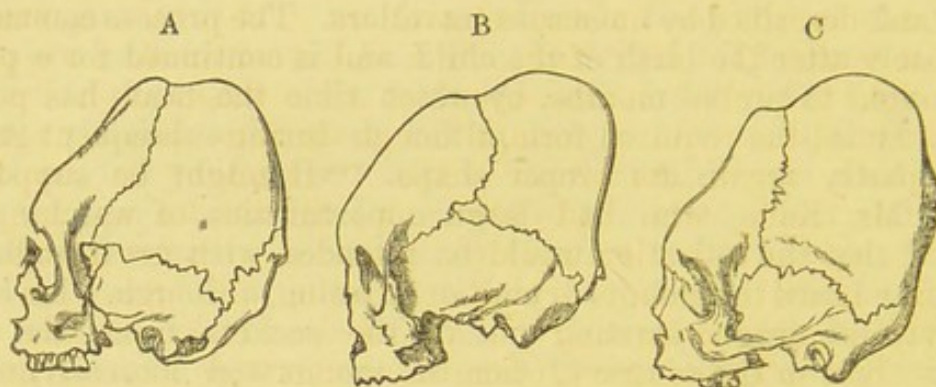
Recent archæological discoveries fully bear out these statements. Heads deformed in various fashions, but chiefly of the constricted, elongated shape, have been found in great numbers in ancient tombs, in the very region indicated by Herodotus. They have been found near Tiflis, where as many as 150 were discovered at one time, and at other places in the Caucasus, generally in rock tombs; also in the Crimea, and at different localities along the course of the Danube; in Hungary, Silesia, in the South of Germany, Switzerland, and even in France and Belgium. The people who have left such undoubted evidence of the practice of deforming their heads have been supposed by various authors to have been Avars, Huns, Tartars, or other Mongolian invaders of Europe; but later French authors who have discussed this subject are inclined to assign them to an Aryan race, who, under the name of Cimmerians, spread westward over the part of Europe in which their remains are now found, in the seventh or eighth century before our era. As the method of deformation in European specimens is not always identical, it is by no means certain that the custom may not have been in use among more than one nation. Whether the French habit, scarcely yet extinct, of tightly bandaging

* Sydenham Society's edition, by Dr. Adam, vol. i. p. 207.

the heads of infants, is derived from these people, or is of independent origin, it is impossible to say.

In Africa and Australia no analogous customs have been shown to exist, but in many parts of Asia and Polynesia, deformations, though

FIG. 7.



Skulls artificially deformed according to similar fashions. A, from an ancient tomb at Tiflis; B, from Titicaca, Peru. (From specimens in the Museum of the Royal College of Surgeons.) C, from the island of Mallicollo, New Hebrides.

usually only confined to flattening of the occiput, are common. Though often undesigned, it is done purposely, I am informed by Mr. H. B. Low, by the Dayaks, in the neighbourhood of Sarawak. Sometimes, in the islands of the Pacific, the head of the new-born infant is merely pressed by the hands into the desired form, in which case it generally soon recovers that which nature intended for it. In one island alone, Mallicollo, in the New Hebrides, the practice of permanently depressing the forehead is almost universal, and skulls are even found constricted and elongated exactly after the manner of the Aymaras of ancient Peru.

Though the Chinese usually allow the head to assume its natural form, confining their attentions to the feet, a certain class of mendicant devotees appear to have succeeded to a remarkable extent in getting their skulls elongated into a conical form, if the figure in Picart's '*Histoire des Religions*,' vol. iv. plate 131, is to be trusted.

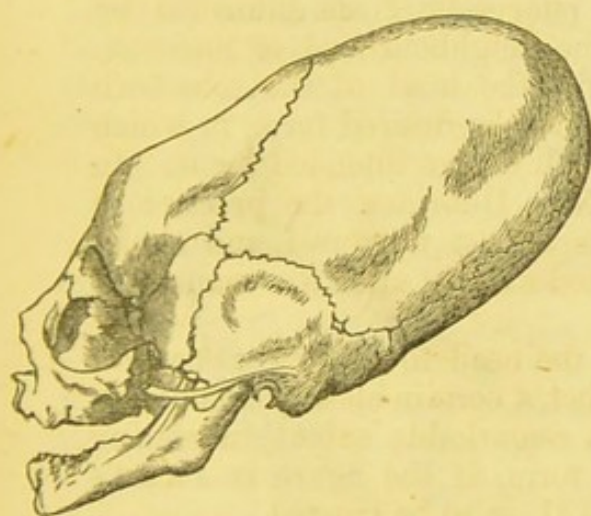
America is, however, or rather has been, the head-quarters of all these fantastic practices, and especially along the western coast, and mainly in two regions, near the mouth of the Columbia River in the north, and in Peru in the south. The practice also existed among the Indians of the southern part of what are now the United States, and among the Caribs of the West India Islands. In ancient Peru, before the time of the Spanish conquest, it was almost universal. In an edict of the ecclesiastical authorities of Lima, issued in 1585, three distinct forms of deformation are mentioned. Notwithstanding the severe penalties imposed by this edict upon parents persisting in the practice, the custom was so difficult to eradicate, that another injunction against it was published by the Government as late as 1752.

In the West Indies, and the greater part of North America, the

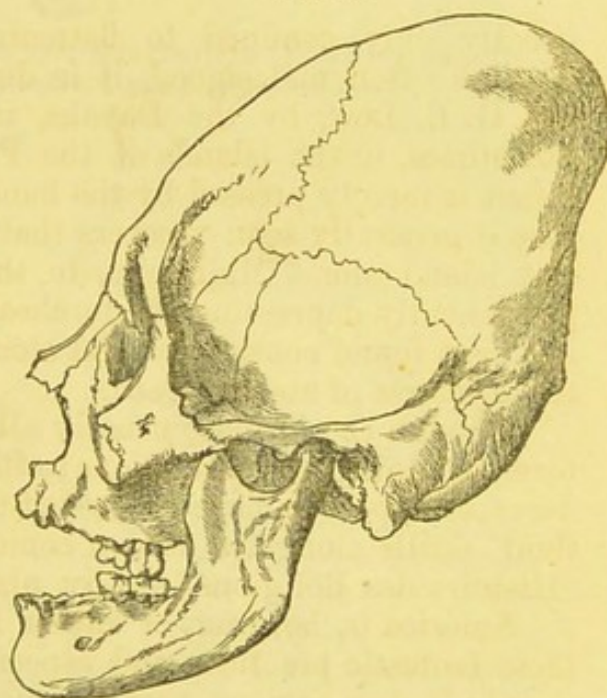
custom has become extinct with the people who used it; but the Chinook Indians, of the neighbourhood of the Columbia River, and the natives of Vancouver Island, continue it to the present day, and this is the last stronghold of this strange fashion, though under the influence of European example and discouragement it is rapidly dying out. Here the various methods of deforming the head, and their effects, have been studied and described by numerous travellers. The process commences immediately after the birth of the child, and is continued for a period of from eight to twelve months, by which time the head has permanently assumed the required form, although during subsequent growth it may partly regain its proper shape. "It might be supposed," observes Mr. Kane, who had large opportunities of watching the process, "that the operation would be attended with great suffering, but I never heard the infants crying or moaning, although I have seen their eyes seemingly starting out of the sockets from the great pressure; but, on the contrary, when the thongs were loosened and the pads removed, I have noticed them cry until they were replaced. From the apparent dulness of the children whilst under the pressure, I should

FIG. 9.

FIG. 8.



Deformed Skull of an Infant who had died during the process of flattening; from the Columbia River. (Mus. Roy. Coll. Surgeons.)



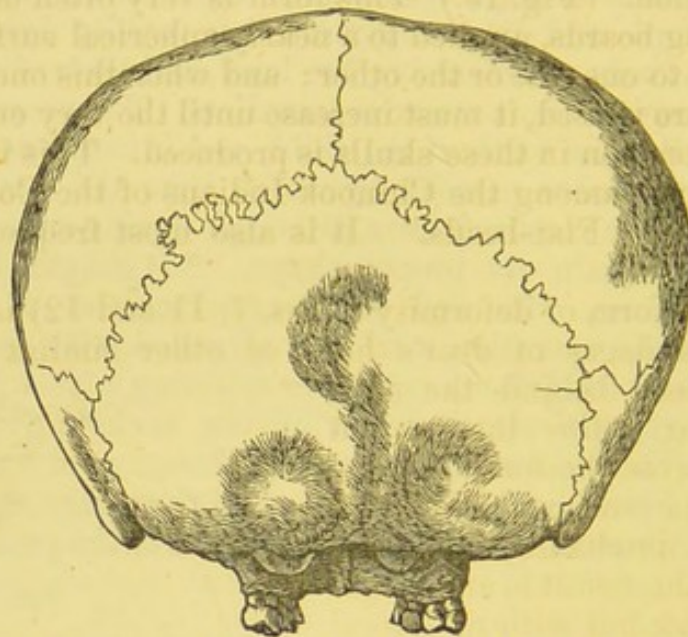
Artificially flattened Skull of ancient Peruvian. (Mus. Roy. Coll. Surgeons.)

imagine that a state of torpor or insensibility is induced, and that the return to consciousness occasioned by its removal must be naturally followed by a sense of pain."

Nearly, if not all, the different fashions in cranial deformity, observed in various parts of the world, are found associated within a very small compass in British Columbia and Washington Territory, each small tribe having often a particular method of its own. Many attempts have been made to classify these various deformities, but as

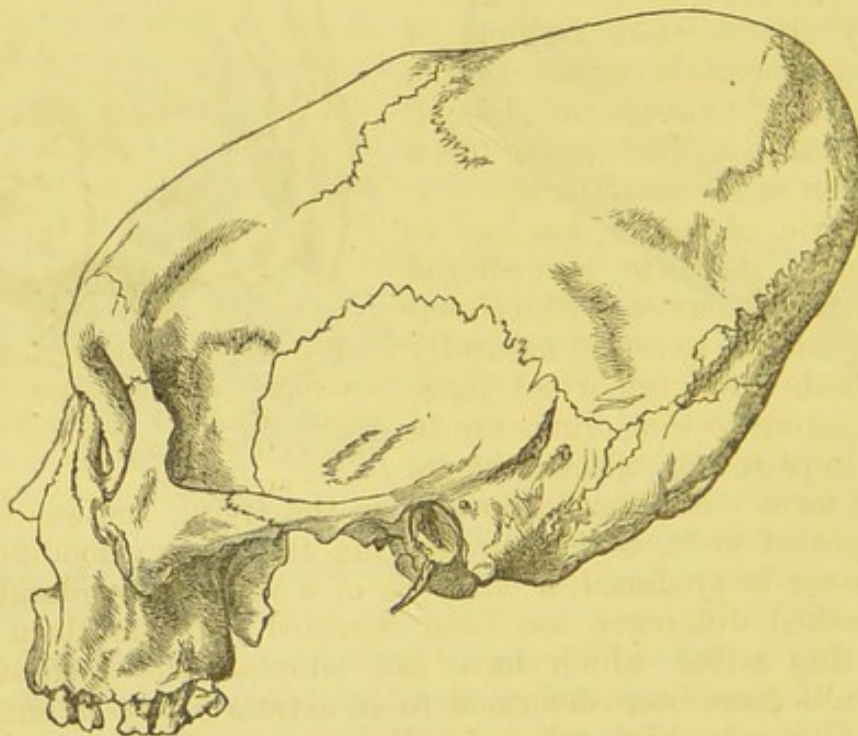
they mostly pass insensibly into one another, and vary according as the intention has been carried out with a greater or less degree of per-

FIG. 10.



Posterior view of Cranium, deformed according to the fashion of flattening, with compensatory lateral widening. (Mus. Roy. Coll. Surgeons.)

FIG. 11.



Cranium of Koskeemo Indian, Vancouver Island, deformed by circular constriction and elongation (Mus. Roy. Coll. Surgeons.)

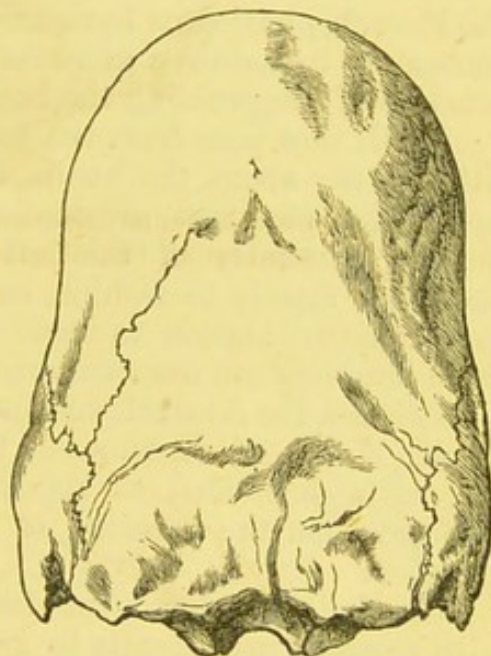
severance and skill, it is not easy to do so. Besides the simple occipital and the simple frontal compressions, all the others may be grouped into two principal divisions. First (Figs. 8 and 9), that in

which the skull is flattened between boards or other compressors, applied to the forehead and back of the head, and as there is no lateral pressure, it bulges out sideways to compensate for the shortening in the opposite direction. (Fig. 10.) This form is very often unsymmetrical, as the flattening boards, applied to a nearly spherical surface, naturally incline a little to one side or the other; and when this once commences, unless great care is used, it must increase until the very curious oblique flattening so common in these skulls is produced. This is the ordinary form of deformity among the Chinook Indians of the Columbia River, commonly called "Flat-heads." It is also most frequent among the Quichuas of Peru.

The second form of deformity (Figs. 7, 11 and 12) is produced by constricting bandages of deer's hide, or other similar material, encircling the head behind the ears, usually passing below the occiput behind, and across the forehead, and again across the vertex, behind the coronal suture, producing a circular depression. The result is an elongation of the head, but with no lateral bulging, and with no deviation from bilateral symmetry. This was the form adopted with trifling modifications by the *Macrocephali* of Herodotus, by the Aymara Indians of Peru, and by certain tribes, as the Koskeemos, of Vancouver Island. The "*déformation Toulousaine*" is a modification of the same form.

The brain, of course, has had to accommodate itself to the altered shape of the osseous case which contained it; and the question naturally arises, whether the important functions belonging to this organ are in any way impaired or affected by its change of form. All observations upon the living Indians who have been subjected to it, concur in showing that if any modification in mental power is produced, it must be of a very inconsiderable kind, as no marked difference has been detected between them and the neighbouring tribes which have not adopted the fashion. Men whose heads have been deformed to an extraordinary extent, as Concomly, a Chinook chief, whose skull is preserved in the museum at Haslar Hospital, have often risen by their own abilities to considerable local eminence, and the fact that the relative social position of the chiefs, in whose families the heads are always deformed, and the slaves on whom it is never permitted, is constantly maintained, proves that the former evince no decided inferiority in intelligence or energy.

FIG. 12.



Posterior view of Cranium deformed according to the fashion of circular constriction and elongation. (Mus. Roy. Coll. Surgeons.)

Although the American Indians, living a healthy life in their native wilds, and under physical conditions which cause all bodily lesions to occasion far less constitutional or local disturbance than is the case with people living under the artificial conditions, and the accumulated predisposition to disease which civilization entails, thus appear to suffer little, if at all, from this unnatural treatment, it seems to be otherwise with the French, on whom its effects have been watched by medical observers more closely than it can have been on the savages in America. "Dr. Foville proves, by positive and numerous facts, that the most constant and the most frequent effects of this deformation, though only carried to a small degree, are headaches, deafnesses, cerebral congestions, meningitis, cerebritis, and epilepsy; that idiocy or madness often terminates this series of evils, and that the asylums for lunatics and imbeciles receive a large number of their inmates from among these unhappy people."* For this cause the French physicians have exerted all their influence, and with great success, to introduce a more rational system in the districts where the practice of compressing the heads of infants prevailed.

I will now pass from the head to the extremities, and shall have little to say about the hands, for the artificial deformities practised upon those members, are confined to chopping off one or more of the fingers, generally of the left hand, and usually not so much in obedience merely to fashion, as part of an initiatory ceremony, or an expiation or oblation to some superior, or to some departed person. Such practices are common among the American Indians, some tribes of Africans, the Australians, and Polynesians, especially those greatest of all slaves of ceremonial, the Fijians, where the amputation of fingers is demanded to appease an angry chieftain, or voluntarily performed on the occasion of the death of a relative as a token of affection.

On the other hand, the feet have suffered more, and altogether with more serious results to general health and comfort from simple conformity to pernicious customs, than any other part of the body. But on this subject, instead of relating the unaccountable caprices of the savage, we have to speak only of people who have already advanced to a tolerably high grade of civilization, and to include all those who are at the present time foremost in the ranks of intellectual culture.

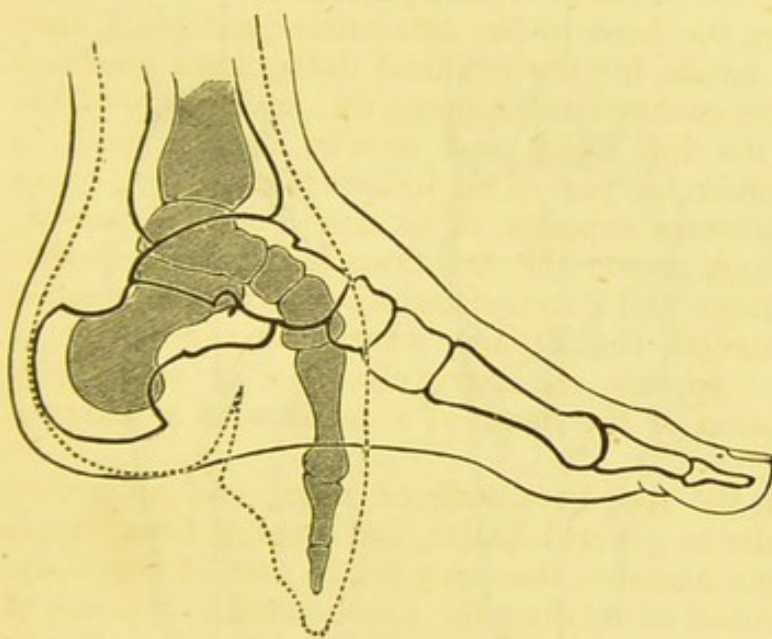
The most extreme instance of modification of the size and form of the foot in obedience to fashion, is the well-known case of the Chinese women, not entirely confined to the upper classes, but in some districts pervading all grades of society alike. The deformity is produced by applying tight bandages round the feet of the girls when about five years old. The process is an extremely painful one, and its results are not only an alteration in the relative position of the growing bones

* Gosse, "Essai sur les Déformations artificielle du Crane," *Annales d'Hygiène publique*, 2 ser. tom. iv. p. 8.

and other structures, but an arrest of their development, so that they remain permanently in a stunted or atrophied condition. The alterations of form consist in two distinct processes; 1, bending the four outer toes under the sole of the foot, so that the first or great toe alone retains its normal position, and a narrow point is produced in front; 2, compressing the roots of the toes and the heel downwards and towards one another so as greatly to shorten the foot, and produce a deep transverse fold in the middle of the sole (Fig. 14). The whole has now the appearance of the hoof of some animal rather than a human foot, and affords a very inefficient organ of support, as the peculiar tottering gait of those possessing it, clearly shows.

But strange as this custom seems to us, it is only a slight step in excess of what the majority of people in Europe subject themselves and their children to. From personal observation of a large number of feet of persons of all ages and of all classes of society in our own country, I do not hesitate to say that there are very few, if any, to be

FIG. 13.



Section of Natural Foot with the Bones, and a corresponding section of a Chinese Deformed Foot. The outline of the latter is dotted, and the bones shaded.

FIG. 14.



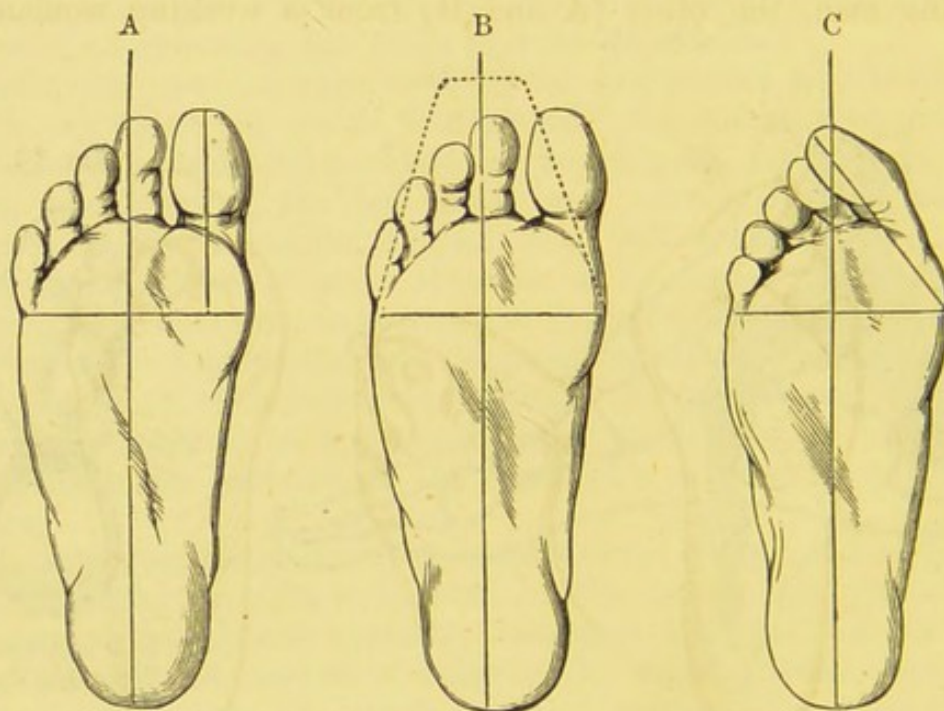
Sole of Chinese Woman's Foot.

met with that do not, in some degree, bear evidence of having been subjected to a compressing influence more or less injurious. Let anyone take the trouble to inquire into what a foot ought to be. For external form look at any of the antique models—the nude Hercules Farnese or the sandalled Apollo Belvidere; watch the beautiful freedom of motion in the wide-spreading toes of an infant; consider the wonderful mechanical contrivances for combining strength with mobility, firmness with flexibility; the numerous bones, articulations, ligaments; the great toe, with seven special muscles to give it that versatility of motion which was intended that it should possess—and

then see what a miserable, stiffened, distorted thing is this same foot, when it has been submitted for a number of years to the "improving" process to which our civilization condemns it. The toes all squeezed and flattened against each other; the great toe no longer in its normal position, but turned outwards, pressing so upon the others that one or more of them frequently has to find room for itself either above or under its fellows; the joints all rigid, the muscles atrophied and powerless; the finely formed arch broken down; everything which is beautiful and excellent in the human foot destroyed, to say nothing of the more serious evils which so generally follow—corns, bunions, in-growing nails, and all their attendant miseries.

Now, the cause of all this will be perfectly obvious to anyone who compares the form of the natural foot with the last upon which the shoemaker makes the covering for that foot. This, in the words of

FIG. 15.

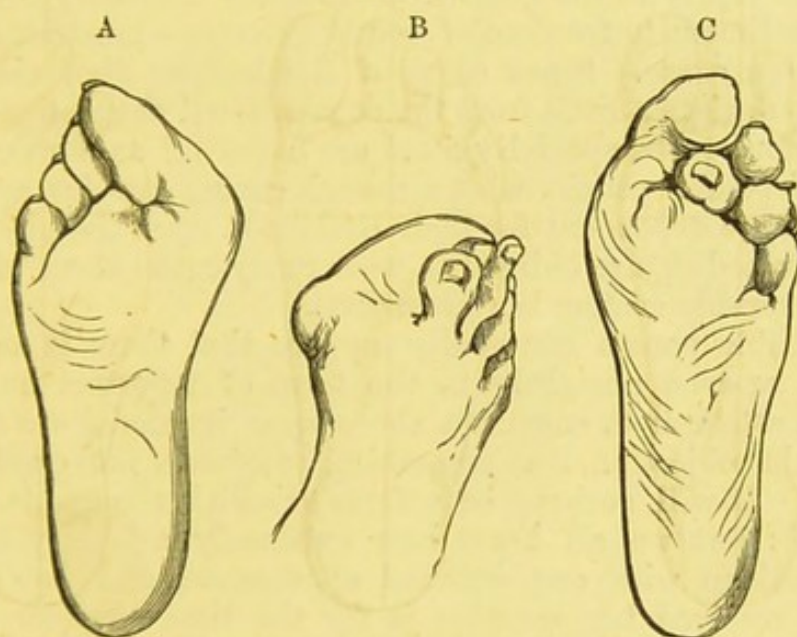


A. Natural form of the sole of the Foot, the great toe parallel to the axis of the whole foot. B. The same, with outline of ordinary fashionable boot. C. The necessary modification of the form of the foot consequent upon wearing such a boot.

the late Mr. Dowie, "is shaped in front like a wedge, the thick part or instep rising in a ridge from the centre or middle toe, instead of the great toe, as in the foot, slanting off to both sides from the middle, terminating at each side and in front like a wedge; that for the inside or great toe being similar to that for the outside or little toe, as if the human foot had the great toe in the middle and a little toe at each side, like the foot of a goose!" The great error in all boots and shoes made upon the system now in vogue in all parts of the civilized world lies in this method of construction upon a principle of bilateral symmetry. A straight line drawn along the sole from the middle of

the toe to the heel will divide a fashionable boot into two equal and similar parts, a small allowance being made at the middle part, or "waist," for the difference between right and left foot. Whether the toe is made broad or narrow it is always equally inclined at the sides towards the middle line, whereas in the foot there is no such symmetry. The first or inner toe is much larger than either of the others, and its direction perfectly parallel with the long axis of the foot. The second toe may be a little larger than the first, as generally represented in Grecian art, but it is more frequently shorter; the other rapidly decrease in size (Fig. 15, A). The modification which must have taken place in the form of the foot and direction of the toes before such a boot can be worn with any approach to ease is shown at C. Often it will happen that the deformity has not advanced to so great an extent, but everyone who has had the opportunity of examining many feet, especially among the poorer class, must have met with many far worse. The two figured (Fig. 16), one (C) from a labouring working man, the other (A and B) from a working woman, both

FIG. 16.



English Feet deformed by wearing improperly-shaped shoes. From nature.

patients at a London hospital, are very ordinary examples of the European artificial deformity of the foot, and afford a good comparison with the Chinese. It not unfrequently happens that the dislocation of the great toe is carried so far that it becomes placed almost at a right angle to the long axis of the foot, lying across the roots of the other toes.

The changes that a foot has to undergo in order to adapt itself to the ordinary shape of a shoe could probably not be affected unless commenced at an early period, when it is young and capable of being gradually moulded into the required form. It seems perfectly marvellous that anyone who had ever looked at a healthy pair of human

feet could have thought of the possibility of wearing a stiff, unyielding shoe of identical form for both right and left, and yet the very trifling difference which is at present allowed is a comparatively modern innovation, and is even now too frequently disregarded, especially where most needed, as in the case of children.

The loss of elasticity and motion in the joints of the foot, as well as the wrong direction acquired by the great toe, are not mere theoretical evils, but are seriously detrimental to free and easy progression, and can only be compensated for in walking by a great expenditure of muscular power in other parts of the body, applied in a disadvantageous manner, and consequently productive of general weariness. The labouring men of this country, who from their childhood wear heavy, stiff, and badly-shaped boots, and in whom, consequently, the play of the ankle, feet, and toes is lost, have generally small and shapeless legs and wasted calves, and walk as if on stilts, with a swinging motion from the hips. Our infantry soldiers also suffer much in the same manner, the regulation boots in use in the service being exceedingly ill-adapted for the development of the feet. Much injury to the general health—the necessary consequence of any impediment to freedom of bodily exercise—must also be attributed to this cause. Since some of the leading shoemakers have ventured to deviate a little from the conventional shape, those persons who can afford to be specially fitted are better off as a rule than the majority of poorer people, who, although caring less for appearance, and being more dependent for their livelihood upon the physical welfare of their bodies, are obliged to wear ready-made shoes of the form that an inexorable custom has prescribed.

No sensible person can really suppose that there is anything in itself ugly, or even unsightly, in the form of a perfect human foot; and yet all attempts to construct shoes upon its model are constantly met with the objection that something extremely inelegant must be the result. It will perhaps be a form to which the eye is not quite accustomed; but we all know how extremely arbitrary is fashion in her dealings with our outward appearance, and how anything which has received her sanction is for the time considered elegant and tasteful, while a few years later it may come to be looked upon as positively ridiculous. That our eye would soon get used to admire a different shape, may be easily proved by anyone who will for a short time wear shoes constructed upon a more correct principle, when the prevailing pointed shoes, suggestive of cramped and atrophied toes, become positively painful to look upon.

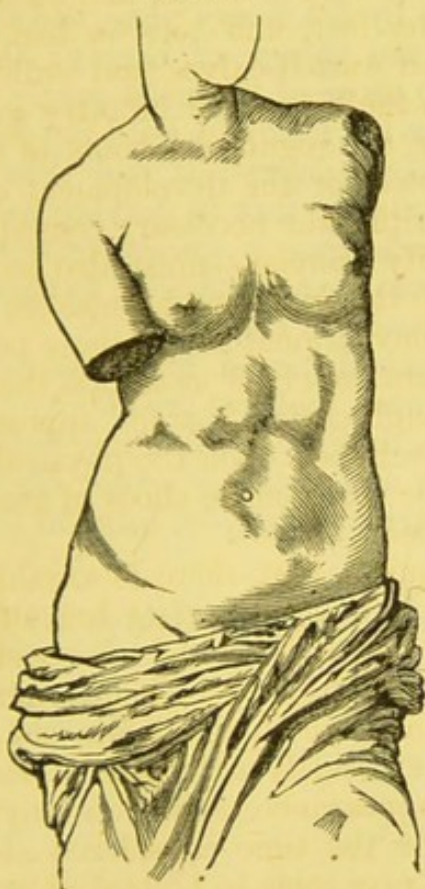
Only one thing is needed to aggravate the evil effect of a pointed toe, and that is the absurdly high and narrow heel so often seen now on ladies' boots, which throws the whole foot in an unnatural position in walking, produces diseases well known to all surgeons in large practice, and makes the nearest approach yet effected by any European nation to the Chinese custom which we generally speak of with surprise and reprobation. And yet this fashion appears just now on the increase

among people who boast of the highest civilization to which the world has yet attained.

But when, in spite of all the warnings of common sense and experience,* we continue to torture and deform our horses' mouths and necks, with tight bearing reins, as injurious, as useless, and as ugly, as any of these customs we practise on ourselves, and all for no better reason, we may well say with Dr. Johnson, "few enterprises are so hopeless as a contest with fashion."

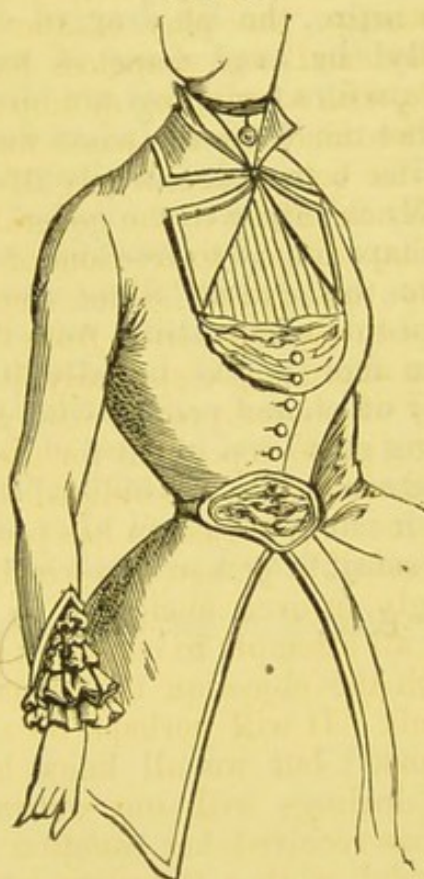
I must speak last upon one of the most remarkable of all the artificial deformities produced by adherence to a conventional standard, and one which comes very near home to many of us.

FIG. 17.



Torso of the Statue of Venus of Milo.

FIG. 18.



Paris Fashion, May, 1880.

It is no part of the object of the present discourse to give a medical disquisition upon the evils of tight-lacing, though much might be said of the extraordinary and permanent change of form and relative position produced by it, not only on the bony and cartilaginous framework of the chest, but also in the most important organs of life contained within it, changes far more serious in their effects than those of the Chinook's skull and brain, or the Chinese woman's foot. It is only necessary to compare these two figures (Figs. 17

* See 'Bits and Bearing Reins,' by Edward Fordham Flower. Cassell and Co., 1879.

and 18), one acknowledged by all the artistic and anatomical world to be a perfect example of the natural female form, to be convinced of the gravity of the structural changes that must have taken place in such a form, before it could be reduced so far as to occupy the space shown in the second figure, an exact copy of one of the models now held up for imitation in the fashionable world. The wonder is not that people suffer, but that they continue to live, under such conditions.

It is quite possible, or even probable, that some of us may think the latter the more beautiful of the two. If any should do so, let us pause to consider whether we are sure that our judgment is sound on the subject. Let us remember that to the Australian, the nose-peg is an admired ornament, that to the Thlinkeet, the Botocudo, and the Bongo negro, the lip dragged down by the heavy plug, and the ears distended by huge discs of wood, are things of beauty; that the Malay prefers teeth that are black to those of the most pearly whiteness, that the Western Indian despises the form of a head not flattened down like a pancake, or elongated like a sugar-loaf, and then let us carefully ask ourselves whether we are sure that in leaving nature as a standard of the beautiful, and adopting a purely conventional criterion, we are not falling into an error exactly similar to that of all these people whose tastes we are so ready to condemn.

The fact is, that in admiring such distorted forms as the constricted waist, and symmetrically pointed foot, we are simply putting ourselves on a level in point of taste with those Australians, Botocudos, and negroes. We are taking fashion and nothing better, higher, or truer for our guide; and after the various examples brought forward this evening, may I not well ask,

“Seest thou not, what a deformed thief this fashion is?”

[W. H. F.]