

The Earliest Known Englishman

A Pre-Boulder Clay Man



ALL the evidence holds good—and in the opinion of those qualified to judge, this is likely to be the case—a skeleton recently dug up near Ipswich, England, represents not only the earliest remains of man yet found in England, but, with the exception of the Heidelberg jaw, the earliest yet found in Europe. The modern type of man was evolved before the commencement of the glacial period. At least it is now certain that thousands of years before the Neanderthal race flourished in

South Germany, Belgium and France, England was occupied by a race of men which in build of body and form of brain were of the modern type. About a mile north of Ipswich, England, is situated a brick field which is famous to geologists for the very ancient quaternary and tertiary deposits which have been exposed by the excavations of the London clay for brickmaking. These deposits, which are given in the descending order, are

- Chalky boulder clay.
- Middle-glacial sand and gravel.
- Decalcified red clay.
- London clay.
- Woolwich and Reading beds.
- Thanet sand.

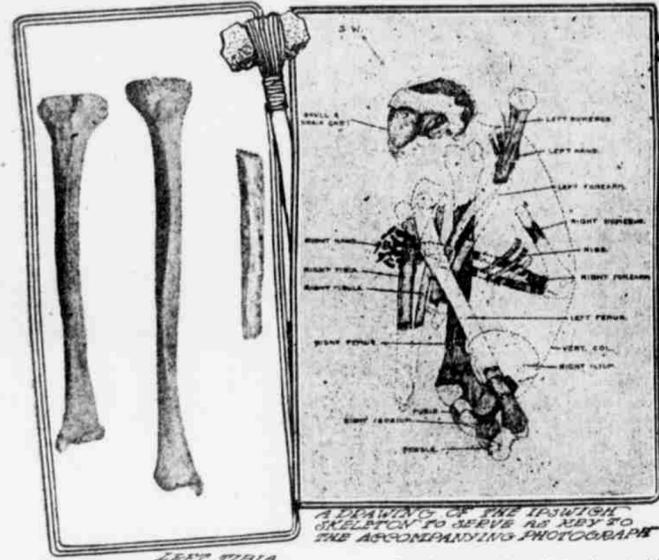
For some six years past I. Reid Moir, of Ipswich, has been collecting flint implements from the beds above the London clay, and, realizing the importance of finding human bones in any of these deposits, had carefully instructed the workmen to communicate immediately with him should such relics turn up.

A few months ago he was notified that one of the workmen, while removing some of the decalcified boulder clay to get at the underlying glacial sand, had found a portion of a human skull, and on going down to the pit discovered that this indeed was the case. As two bones could be seen projecting from the vertical face of the section at a depth of about 4 feet from the surface, Mr. Moir, accompanied by three friends interested in archaeology and geology, went down on the following afternoon to the pit and superintended the digging out of the remainder of the skeleton. As a most careful examination of the hard clay above the remains showed that no digging had ever taken place on this spot before, it was recognized that the find was an important one, and every care was taken in removing the overlying

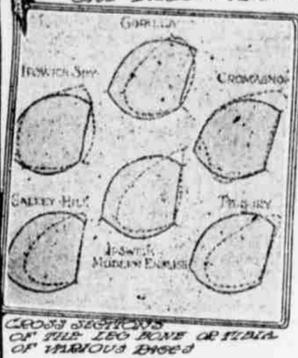


A PHOTOGRAPH OF THE SKULL

THE EARLIEST KNOWN ENGLISHMAN



A DRAWING OF THE IPSWICH SKELETON TO SHOW AS NEARLY TO THE ACCOMPANYING PHOTOGRAPHS



CROSS SECTIONS OF THE BONES OF VARIOUS TYPES

son of the caivaria of the Neanderthal skull with the corresponding part of the Galley Hill man will bring out its peculiar features. Both are very long skulls, the Neanderthal being 203 mm., the Galley Hill some 2 mm. more.

The great size of the supra-orbital torus gives the forehead of the Neanderthal man a receding appearance. It is a striking fact that the brain had reached, as regards size, more than a modern degree of development in the Neanderthal type (over 1,500 cc.); indeed, 1,480 cc. is usually accepted as an average for modern man. The earliest trace of the Neanderthal type of man yet found was discovered in the valley of the Neckar, some six miles above Heidelberg. Only a lower jaw was found. . . . The Heidelberg man had a massive jaw. . . . One can be absolutely certain that the head form of the Heidelberg man was of the Neanderthal shape. . . . In the manner of head fixation Neanderthal man retains a distinct trace of the anthropoid form. . . . The earliest trace of the skeleton of man yet found in Europe must be assigned to a period which carries us back many hundred thousands of years. . . . Yet even at that early date we find man already evolved, brutish perhaps in appearance, savage, no doubt, in his nature—yet large-brained, erect in posture, and in every sense of the biologist—a man.

Of the type known as Pithecanthropus erectus, called the "missing link," Dr. W. J. Sollas in "Ancient Hunters," says: "Dr. Eugene Dubois, who had left Holland for Java with the avowed intention of finding the 'missing link,' discovered in September, 1891, a molar tooth . . . the wisdom tooth of Pithecanthropus erectus; later . . . the cranial vault, or the skull-cap, was found. . . . The thigh bone of the left leg was found lying fifty feet away from the spot where the first tooth was obtained, but still on the same horizon, and finally, in October (1892), another molar tooth. . . . A description of the remains of Pithecanthropus has been published by Dr. Dubois. . . . All are agreed that they indicate an animal bearing a close resemblance to man and apes. Some regard Pithecanthropus as an ape with certain human characters; others as a man with evident simian characters; others . . . as a connecting link midway between man and the higher apes. The suggestion has even been made that the remains are those of a microcephalic idiot. . . . That which distinguishes man from all the beasts of the field is the power and complexity of his mind. . . . Thus the chief interest in the Trinil fossil attaches to the skull-cap, or brainpan . . . this is certainly more simian than human. . . . The animal has been fittingly designated Pithecanthropus erectus—the ape-man who walked erect."

material. When the bones were reached it was found that they were in such a friable state as to necessitate the strata in which they lay being dug up in large lumps; and as it was of the greatest importance to have them at once placed in the hands of experts, they were forwarded the same evening to the Royal College of Surgeons, London, where they were most carefully and skilfully examined by Prof. Arthur Keith, the conservator of the college. During the next week the strata each side of the place where the skeleton was found were examined and reported on by Mr. W. Whitaker, F.R.S., Dr. J. E. Marr, F.R.S., and Mr. George Slater, F.G.S. The chalky boulder clay, under which the bones were lying, covers an immense area in East Anglia, and is a landmark in Pleistocene geology. It owes its origin to the ice-sheet associated with the last episode of the great Ice Age, and its antiquity may be gauged from the fact that since its deposition most of our present river valleys have been formed. Before the chalky boulder clay was laid down there was apparently a sandy land-surface to the north of Ipswich, and on this land-surface lived the man whose remains have been found. The flint implements he and his associates made, which were, no doubt, lying on the land-surface before the advance of the ice, have been found in some abundance in the boulder clay, and at the junction of the clay with the glacial sand, and, therefore, at exactly the same horizon as the bones themselves occurred. These implements, and those from the underlying middle-glacial gravel, though very skilfully made, are of pre-Palaeolithic forms, and there is no doubt that in pre-boulder clay times the true Palaeolithic stage of culture had not been reached.

Yet the man who lived in Britain in the interglacial period before the boulder clay was laid down, and who is, therefore, of a vast and unknown antiquity, was to all intents and purposes modern man. He stood about 5 feet 10 inches in height; his head was perhaps a trifle smaller and flatter than present-day examples, but there was nothing brutal or simian in his appearance.

Now the Neanderthal men whose remains have been frequently found in caves and rock shelters in the south of France and elsewhere, and who lived in these districts in mid-Palaeolithic times, and are, therefore, much less ancient than the

Ipswich man, show distinctly primitive and somewhat simian characteristics. The implements which they made are also of a more simple type than those found in the river-terrace gravels, which are nevertheless more ancient. Therefore, if we are to judge of the type of man from the implements he made, the earlier river-drift man was of a more advanced type than the later Mousterian or Neanderthal man. The famous find at Galley Hill of portions of a human skeleton in the very ancient 100-foot terrace of the Thames has proved this to be true; for here we have a type of skull which is by no means degraded, and associated with flint implements which show an advanced civilization.

Thus the evidence of the flints and the evidence of the human bones are in entire agreement; but the 100-foot terrace of the Thames at Uplminster, in Essex, rests upon, and is therefore less ancient than, the chalky boulder clay, and under this boulder clay at Ipswich a modern type of man has been found! And yet not quite modern, for the Ipswich man's tibia, or shin-bone, is different in every way from ours, and not only ours, but from any which have hitherto been found or described. This peculiar tibia, which, as Professor Keith says, represents a stage in evolution, and will serve to distinguish the race to which this man belonged, was no doubt associated with his manner of walking, but at present it is impossible to say exactly what this association was. The finding of a modern type of man below the chalky boulder clay is, as has been suggested, at first sight rather puzzling, but the dexterously flaked implements which have been found in the older middle-glacial gravels, and the still much older detritus bed below the red clay, make the discovery much more easy to understand. The outstanding fact about this discovery is that even at such an immensely remote period as that preceding the deposition of the chalky boulder clay, modern man was already evolved, and that to find the primitive human type we shall have to carry our investigations back into a still more dim and distant past.

The Neanderthal man of the earlier Ice Age is the oldest known European. Of this type Prof. Arthur Keith in "Ancient Types of Man," says: "We know now that the men who lived in Europe during the earlier and greater part of the Glacial Period—one estimated to have extended over a period of from 500,000 to 1,500,000 years—were of the Neanderthal type. . . . A compar-

ison of the caivaria of the Neanderthal skull with the corresponding part of the Galley Hill man will bring out its peculiar features. Both are very long skulls, the Neanderthal being 203 mm., the Galley Hill some 2 mm. more.

The great size of the supra-orbital torus gives the forehead of the Neanderthal man a receding appearance. It is a striking fact that the brain had reached, as regards size, more than a modern degree of development in the Neanderthal type (over 1,500 cc.); indeed, 1,480 cc. is usually accepted as an average for modern man. The earliest trace of the Neanderthal type of man yet found was discovered in the valley of the Neckar, some six miles above Heidelberg. Only a lower jaw was found. . . . The Heidelberg man had a massive jaw. . . . One can be absolutely certain that the head form of the Heidelberg man was of the Neanderthal shape. . . . In the manner of head fixation Neanderthal man retains a distinct trace of the anthropoid form. . . . The earliest trace of the skeleton of man yet found in Europe must be assigned to a period which carries us back many hundred thousands of years. . . . Yet even at that early date we find man already evolved, brutish perhaps in appearance, savage, no doubt, in his nature—yet large-brained, erect in posture, and in every sense of the biologist—a man.

Of the type known as Pithecanthropus erectus, called the "missing link," Dr. W. J. Sollas in "Ancient Hunters," says: "Dr. Eugene Dubois, who had left Holland for Java with the avowed intention of finding the 'missing link,' discovered in September, 1891, a molar tooth . . . the wisdom tooth of Pithecanthropus erectus; later . . . the cranial vault, or the skull-cap, was found. . . . The thigh bone of the left leg was found lying fifty feet away from the spot where the first tooth was obtained, but still on the same horizon, and finally, in October (1892), another molar tooth. . . . A description of the remains of Pithecanthropus has been published by Dr. Dubois. . . . All are agreed that they indicate an animal bearing a close resemblance to man and apes. Some regard Pithecanthropus as an ape with certain human characters; others as a man with evident simian characters; others . . . as a connecting link midway between man and the higher apes. The suggestion has even been made that the remains are those of a microcephalic idiot. . . . That which distinguishes man from all the beasts of the field is the power and complexity of his mind. . . . Thus the chief interest in the Trinil fossil attaches to the skull-cap, or brainpan . . . this is certainly more simian than human. . . . The animal has been fittingly designated Pithecanthropus erectus—the ape-man who walked erect."

Simply Waiting.
"Dibbs is a confirmed peasant."
"Are you sure of that?"
"Quite sure. He says he expects to hear any day the booming of the first gun in a South Pole controversy."

The KITCHEN CABINET



THE great difficulty is always to open people's eyes, to touch their feelings and break their hearts is easy; the difficult thing is to break their heads.

USES FOR SOUR CREAM.

Sour cream is such a valuable aid in cookery that not a tablespoonful of it should ever be wasted.

To each cup of thick sour cream, beat in a half teaspoonful of soda, then use with a scant amount of baking powder. With cream very little shortening need be used, one to three tablespoonfuls, according to the richness of the cream.

Drop Cookies.—Use half a cup of butter, one cup of sugar, one egg beaten light, half a cup of sour cream, one-fourth of a teaspoon of soda, two and a half cups of flour and three and a half teaspoonfuls of baking powder. Mix in the usual manner and drop from a spoon upon buttered tins, shaping each portion into a smooth round. Dredge with granulated sugar and bake in a moderate oven. Half a cup of coconut may be added before the flour and the quantity of flour reduced a little.

Sour cream used in a white sauce served with codfish is a new dish to many, but once tried it will often be repeated.

It often happens in warm weather, with even a limited supply, that some of the milk will get sour before it can be used. If a quart or more is on hand some of the delicious cottage cheese may be prepared. Set the thickened milk on the back part of the stove, and when a curd is formed, drain off the whey and season with salt, butter and a little thick sour cream.

Sour Cream Filling for Cake.—Sweeten and chill a cup of sour cream. Whip it, keeping it cold while doing so, and when stiff fold in a cup of nuts; hickory are best. This is excellent for layer cakes.

Raisins added to the above filling makes a variety. Lemon juice and powdered sugar may be added with the raisins.

Graham Bread.—Sift together one cup of graham and one cup of wheat flour; add a teaspoonful of soda, a half teaspoonful of baking powder, a cup of sour milk, a half cup of molasses, a fourth of a teaspoonful of salt; combine the ingredients and bake in a bread pan one and one-half hours.



THE most solid comfort one can fall back upon, is the thought that the business of one's life—the work at home after the holiday is done—is to help in some small nibbling way to reduce the sum of ignorance, degradation and misery on the face of this beautiful earth.

HOUSEKEEPING NECESSITIES.

- To many some of these may come under the head of luxuries; but most of us are able to do without the necessities if we can have the luxuries.
- Seasonings, spices and herbs of all kinds, including cayenne pepper and paprika.
- Catsups and piquant sauces.
- Small cans of vegetables, meats, soups and fish.
- Extract of beef and bouillon cubes.
- Canned sweet peppers.
- Salad dressings.
- Jar of grated cheese.
- Crackers and cans of condensed milk.
- For utensils, a double boiler or two, several wooden spoons.
- Wire whisk and Dover egg beater.
- Frying basket and individual baking dishes.
- Coffee percolator.
- Zinc covered table.
- Meat chopper.
- Bread mixer.

These are a few of the indispensables in a well-ordered household.

Hot Chicken Salad.—Mix a pint of cooked chicken cut in cubes with a cup of cooked peas, half a teaspoonful of salt, a little red pepper, a teaspoonful of onion juice, a sweet red pepper cut fine, a teaspoonful of lemon juice and set aside to season. Make a sauce of a fourth of a cup of butter, the same amount of flour, seasonings, a cup of cream, a cup of chicken broth; add the other ingredients and let stand over water to become hot.

This is good served from a chafing dish.

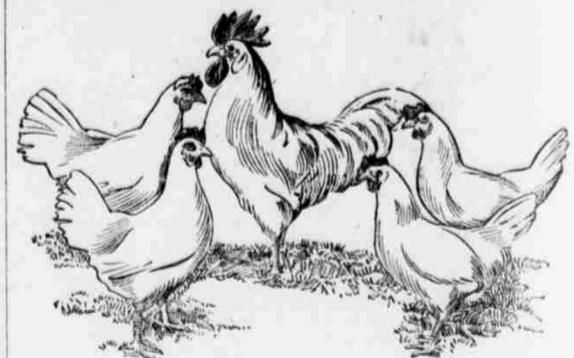
A pretty luncheon biscuit is made by putting three small biscuits in each of a set of patty pans. They will look like a clover leaf when baked and are called clover biscuits.

Aviator Attacked by Birds.
Sea gulls which nest in the marshes at San Rafael, Cal., made a combined attack on their human rival, a French aviator, the other day, and drove him to the ground. The aeronaut said later he could not see his way because of the birds flapping their wings in his face.

Willing to Help.
"Look here, waiter, this oyster is still alive."
"Yes, sir. Do you want to kill it with your fork or shall I get a hammer?"

STANDARD BREED OF POULTRY MOST PROFITABLE TO FARMER

Erroneous Idea to Think That Mongrel Chickens Offer Any Advantage Over Pure-Bred Stock—Many Improvements in Laying and Meat-Producing Qualities of Birds.



Prize Winning Single-Comb White Leghorns.

(By OSCAR ERF.)
Pure-bred animals are those that produce their form, habits or other distinctive qualities with uniformity. In order that we may get offspring like the parent and like each other we must have animals whose ancestors for many generations back have been of one type. The more generations of such uniformity, the more certain it will be that the young will possess similar quality.

The wild animals of any one kind or species in one locality have been of similar type for many generations and may be considered as pure-bred. By the law of natural selection, individuals not suited to live in that particular locality have been weeded out.

When animals are domesticated, and moved to other climates, and are fed different foods, only such individuals will live and produce young as are suited to the new conditions. But another factor changes domestic animals more rapidly. Men breed only such specimens as please their fancy; and this artificial selection replaces natural selection. During the many centuries of domestication the chickens of different parts of the world have developed into different types. When these radically different types are brought together and crossed we have produced young that are very different from the parents and from each other. Nor can these young be depended upon to reproduce offspring like themselves. They are said to be cross-bred, or, if the mixing be for several generations, they are known as mongrels.

By selecting from cross-bred or mongrel stock such chickens as are desired, and breeding these together for many generations, new breeds may be established.

One strain of chickens may be selected for uniform color of feathers, another for a certain size and shape, another for laying large eggs of a certain color, and yet another strain for being producers of many eggs. Each of these strains might be well-bred in these peculiar traits, but would be mongrels when the other considerations were taken into account. Breeders of pure-bred stock, in making their selection of breeding animals, try to consider the desirable qualities in due order of their relative importance. Thus, with trotting horses speed is given prominence above everything else, while in the case of swine or beef cattle attention has been given to the qualities of growth and fattening that make for the profitable

production of meat. Only such uniformity of color and minor points demanded as will serve to distinguish the breed and give uniformity of appearance. The standards adopted by breeders of this class of animals give relatively small consideration to the points, whereas poultry breeders consider about one-half of the value of their birds to depend on color of feathers alone, while the judgment of shape is based upon the outline produced by the feathers and not on the true body shape. The standard bred poultry fanciers have not been mainly concerned in producing broods of chickens for the use of the farmer or practical grower, as have been the breeders of cattle and swine. Men who pursue animal breeding for pleasure alone do not choose large, slow-breeding animals, such as cattle; neither do animals wholly worthless from other standpoints receive much attention from breeders. But the best, variable in form and color, inexpensive to secure, readily reared and capable of producing in brief time large numbers of offspring, and yet withal capable of paying her way in food products, has rendered possible the development of the fancy or standard-bred chicken business into the most universal and important fancy or artistic-breeding business in the world.

From the attention that has been given to the breeding of poultry for the show room, many people wrongly infer that standard-bred poultry is no better than mongrel stock for commercial purposes.

The mongrel chicken is a production of chance. Its ancestry represents everything available in the barnyards of the neighborhood, and its offspring will be equally varied. In the pure breeds there has been a rigid selection practiced that gives uniform appearance.

The size and shape requirements of the standard, although not based on the market demands, comes much nearer producing an ideal carcass than does chance breeding. Ability to mature for the fall and winter shows is a decidedly practical quality that the fancier breeds into his chickens. Moreover, poultry breeders, while still keeping standard points in mind, have also made improvements in the laying and meat-producing qualities of their chickens. Considering these facts, it is an enormous idea to think that mongrel chickens offer any advantage over pure-bred stock for meat or for eggs.

MANY MISTAKES MADE AT START

Those About to Begin With Poultry Should be Advised to Begin With Good Stock or Eggs.

How often have you stopped to think how much better off you would have been and how much time you would have saved had you started in with a pair or a trio of good breeders instead of the flock of cull chickens which you purchased and which even the most experienced poultryman would have found difficult in handling?

How often have you thought about advising those about to start in with chickens to put their money in good stock or eggs at the outset instead of fretting with worthless stock for two or three seasons before realizing their mistake?

How often have you given this advice to a deaf ear, become provoked and then got in a good humor again when you thought of the fool you had been and of the time you had in making up your mind to the necessity of starting in all over again, after devoting a couple of years to a flock that no one could have made to pay for its feed?

When we look back upon the many mistakes we made in getting a start we wonder how we managed to stay with it. It is then we realize why it is so many go in for chickens and fail, and begin to wonder how it happens that more did not give up at the outset.

Advantage With Ducks.

One advantage in duck raising is that there is very little loss from disease and they are not bothered by vermin.

RAISING CROPS FOR THE SILO

Ground Should be Selected on Which to Grow the Largest Possible Yield of Corn.

Now is the time to make arrangements for the silo. Ground should be selected on which to grow the largest possible yield of corn, and as conveniently located as possible, for it costs money to haul green corn long distances.

If the old alfalfa sod was plowed last fall for planting to corn this spring, so much the better; if not, plow as early as possible this spring and plow deeply, using a dressing of well rotted manure to plow under if it can be had. Corn is a crude feeder and will give good account of any fertilizer you may have.

It is not too much to expect twenty to fifteen tons of green corn per acre at harvesting time, so the silo should be built to accommodate the area of corn grown; but be sure and build large enough; for when once used it will grow in favor, and the chances are the area of corn planted and the number of animals fed will be increased when the practice is once established.

Paralyzed Hens.
Hens that cannot stand and are no use of limbs, but seem to be otherwise healthy, are probably paralyzed. Little can be done for such birds and it is best to dispatch them quickly.

Eggs for Hatching.
Eggs must be from good, strong stock, fertile and fresh to hatch well. They must not be subjected to jarring, immoderate air or too great heat.