

An Hour with the Editor

THE ROMAN EMPERORS

Having restored peace to the Empire over which he was now sole ruler, Constantine determined upon erecting a monument to himself, and for that purpose founded the city of Constantinople upon the ruins of Byzantium, which he proclaimed capital in the year 330. He died July 22, 337, in the 63rd or 65th year of his age. Not long before his death he professed Christianity and was baptized. The character of Constantine has been a subject of much discussion. He had a strong sense of justice and as a rule was of merciful disposition, a fact which it seems hard to reconcile with his order that his favorite son should be put to death on the charge of conspiracy. He was not a Christian, although he presided at the Council of Nicaea. He was above all things a politician, and even his panegyrist admit that his friendliness towards Christianity arose solely out of a desire to maintain his power over the Empire, the new religion having obtained such wide acceptance that any other course would have been disastrous. He seems to have lived abstemiously, and to have been free from the vices of the age to an exceptional degree.

The great event of the reign of Constantine was the recognition of Christianity as a religion, the closing of the pagan temples and the abolition of sacrifices. Thus in about three hundred years after the Apostles had set out to preach the Gospel, it had overcome all opposition and had supplanted every other religious system in the greatest empire which the world had ever seen up to that time. There is a popular misconception as to the attitude of people of learning, influence and refinement towards Christianity in the early days of its history, a misconception encouraged by those who teach that the new religion was not accepted because of the wickedness of the people. A few observations upon this point may therefore not be out of place.

It must not be forgotten that Jesus was a Jew, and that his disciples also were Jews. Today we see Christianity a world-wide religion; it is hard for us to realize that originally this wonderful organization consisted of nothing more than a little band of Jews, of very humble social rank, who believed that one of their number was the Son of Jehovah. After the death of its Founder there was much uncertainty among His followers as to what He had taught, and there was a division among them, possibly more than one. In the course of time the giant intellect of Paul swayed the great body of Christians towards his views, but there always remained considerable disagreement between the various factions. To the Romans the Christian movement must have seemed at the outset utterly insignificant. Rome was absolutely impartial as between religious beliefs. It conquered countries, but permitted the people to exercise their religious practices without interference. It extended the same treatment to the Jews as to others, and if the former were treated rigorously at times, it was because they were a stubborn race, excessively proud of their descent and confident that they were in a special manner the favored people of the Supreme Deity. The Jews were divided into several sects, one of which may be mentioned, namely, the Herodians, who were distinguished from the orthodox Jews by the fact that they were willing, while cherishing their belief in Jehovah, to conform to the customs of Pagan Rome. There were the two great sections of the Jewish organization, the Pharisees and the Sadducees, which were very hostile to each other. Doubtless also there were other sects, but little, if any, record of them has been preserved. Josephus, the great Jewish historian, who was born in 37, does not mention Christianity. There is in his history as we have it today one sentence in which Jesus is mentioned; but some authorities claim this to be an interpolation. It will be seen, therefore, that to the people of Rome the existence of a new sect of Jews was a matter of indifference. It is true that in the imperial capital the members of the sect were at times subject to persecution, but this was not because they were Christians, but because they were Jews. When we read in the Acts that "Paul dwelt two whole years in his own hired house, and received all that came to him; preaching the Kingdom of God, and teaching those things that concern the Lord Jesus Christ, with all confidence, no man forbidding him," we have only an account that might have been given of many other teachers, for the hospitality of Rome was open to the world.

From this insignificant beginning the Christian Church grew. It would be a mistake to suppose that Rome was the centre of its activities, from which the new religion went out to overcome all others in the Empire. This does not mean that Peter was not bishop of Rome and that he and his successors have not always been the head of the Church. Upon that point it is not necessary to express any opinion whatever. The fact to be kept in mind is that everywhere throughout the Roman world, Christianity was making its way. The Epistles written by the Apostle Paul were addressed to the Romans, the Corinthians, the Galatians, the Ephesians, the Colossians, the Thessalonians, and to the Hebrews generally. This shows that during a single lifetime the religion had spread over Asia-Minor, the Balkan Peninsula and Italy. It is not unreasonable to believe it had also made some progress in Syria and Egypt. We must not suppose that during the lifetime of Paul its adherents had become numerous, for they had not. They had

only become widely distributed. Afterwards everywhere the number increased with extraordinary rapidity. Persecution, so far from preventing its acceptance, only seemed to stimulate it. Yet it must be remembered that with all this progress more than a century passed before the new religion was looked upon as a formidable factor in the state. By the middle of the Second Century the Christians had become numerically formidable, and in 177 Marcus Aurelius issued his first edict against them. This act was so utterly out of keeping with the character of that distinguished statesman and philosopher, that his biographers have been at a loss to account for it. The persecution, so far as is known, was caused by no overt act on the part of the Christians, but was sanctioned because in the opinion of Marcus the Christians were a secret conspiracy, a pernicious sect, the practitioners of an immoral superstition. He regarded their ascription of divine nature to a man, who had been executed as a malefactor, as blasphemy of the worst kind. In this persecution a great many Christians perished, but the movement was in no way retarded. Its missionaries went abroad throughout all the Empire, making converts everywhere. It is a very remarkable thing that in a century after the massacres authorized by Marcus, the Christians numbered nearly half the population of the Empire, notwithstanding the fact that the period had been one of almost incessant war and tumult. When Constantine became sole ruler, the large majority of the people, not merely of Rome, but of the whole Empire had accepted at least nominally Christianity as their religion. It is not pretended that Constantine took up its cause for any other than political motives. He saw that to do so would be popular, and that he would thereby strengthen his position against all pretenders. There does not appear to have been any formal decree directing that Christianity should be recognized as the religion of the state, although the edict closing the temples and forbidding sacrifices was equivalent to it. The former religious freedom enjoyed by the Romans now ceased, and the tendency of events was towards the other extreme, one faction in the Church opposing another with every means at its disposal. In order that order might be brought out of chaos, and the powerful organization of Christianity might be in the hands of one authority, the famous Council of Nicaea was called. This great epoch-making assemblage of prelates was held at Nicaea, a city of Asia Minor, and was attended by three hundred and eighteen bishops, besides very many inferior ecclesiastics. It was called by Constantine to determine the doctrinal issue between Arius and the majority of the bishops, the cause of the latter being represented in the Council chiefly by Athanasius. Constantine had declared the point at issue, namely, the exact nature of the Divine Sonship of Christ, to be a matter of no importance, and yet he presided at the Council, and, pagan though he was, threw all his influence in favor of those who held what is now recognized as the orthodox view, and this prevailed.

It is a strange commentary upon the judgment of mankind that this Emperor, whose sagacity had assisted him to overcome every obstacle in the way of his personal advancement, should have made at the last an error which undid all his great work for Rome. It has been mentioned above that he caused his ablest son, Crispus, to be put to death on a charge of conspiracy, one of his daughters at the same time falling a victim to her father's anger. He had three sons remaining, Constans, Constantine and Constantius, and he divided the Empire between them, thus plunging Rome into turmoil that led speedily to her downfall.

SOMETHING ABOUT ICE

Recently the result of some observations among the icebergs of the Antarctic Ocean have been published. One instance is mentioned where an iceberg of great dimensions was measured and found to be 1625 feet above the surface of the water. As only one-eighth of an ice mass floats above the surface, that berg may have been 13,000 feet in thickness, although if the submerged mass greatly exceeded the elevated mass in area, the thickness would not be so great. Another instance was mentioned where a ship steamed at night into what appeared to be a large land-locked bay surrounded with hills of moderate altitude. When daylight came the shores and hills were seen to be of ice, and investigation showed that what appeared to be an island was only a vast floating berg. Indeed the accounts given of the magnitude of the ice masses in the Southern Ocean simply astound one. The greatest icebergs of the north are mere pigmies by comparison.

The origin of these masses is the Antarctic Continent. This vast area, the extent of which is not fully known, but it is several millions of square miles, seems to consist of little else than ice covered with a mantle of snow, the latter by pressure becoming solidified into ice. It is an interesting fact that ice particles freeze together at the point of contact, and therefore snow, which consists of minute ice particles, readily becomes converted into solid ice under the pressure of its own weight in a low temperature. This ice mass in the Antarctic Zone differs from the corresponding masses in the North in the fact that the latter are formed either on comparatively level land like Greenland or in the open sea; whereas in the South the ice seems to lie upon the slope of a mountain range, the peaks of which Lieuten-

ant Shackleton told us about. If this is correct, the motion of the ice towards the sea must be more rapid than in the North, and hence greater masses are broken off.

The genesis of an iceberg is somewhat as follows: Snow falls in vast quantities in the latitudes of nearly perpetual cold; and in the course of a short time it is converted into ice. As the years pass the ice deposits grow thicker, and by its own weight it slides more or less slowly towards the sea. Having reached the water, the ice mass thrusts itself out unbroken until it reaches such a distance that the lifting power of the water breaks it, and the fragment, which may be of very great magnitude, floats away. The motion of these ice masses varies from a few feet a year in the case of some of the Alpine glaciers up to 50 or 60 feet a day, in the case of some of the northern glaciers. How rapid it may be in parts of the Antarctic Continent is unknown, for lack of sufficient observations to determine it. The idea that a great mass of ice can flow steadily onward was rather more than some scientific men were willing to admit less than a century ago, and it was only conceded when proof had been forthcoming by the arrangement of a line of stakes across an Alpine glacier, which were seen a year later to be considerably out of line, and all further down the valley than they had originally been placed. The position of the stakes showed that not only had the whole glacier moved downward, but that the centre had moved faster than the middle, showing that ice moves on a declining surface or in response to pressure just as water does in a river.

This set the wise men wondering how a mass of brittle material like ice could move in such a way, and the suggestion was made, and generally accepted, that while ice is brittle in small masses, it is viscous in large masses, and hence while even a large block of ice is rigid and brittle, a glacier may be fluid to a certain degree as a whole, although each part of it is brittle. This explanation did not satisfy all investigators, and a new theory was advanced, founded upon the fact above stated, that ice particles freeze at the point of contact. It is now supposed that the flow of a glacier is due to the constant fracture and instant re-congealing of minute ice particles, although at times the strain upon the mass, caused by inequalities of the surface over which it flows, leads to the formation of crevasses.

The great Southern ice-cap is of a bulk that is simply inconceivable. Some years ago a sensational article appeared in a New York paper forecasting the probable result of the "calving" of an exceptionally large iceberg in the South, and it was alleged that the effect would be the formation of a tidal wave that would devastate the whole Atlantic Coast. Such an event is exceedingly improbable for reasons suggested above, namely, that there must be a limit to the magnitude of the ice masses that can be broken off from the great ice-cap. Moreover, the greatest mass that could be broken off would take up less space in the water than it did before it was broken, because until the fracture took place the part in the water would be submerged, and after it took place the submerged mass would rise one-eighth of its magnitude above the surface. The only conceivable cause of such an event as was suggested is the occurrence of something in the Antarctic Continent that would send the ice-cap into the sea, such as a tremendous earthquake. This would cause a tidal wave of perhaps sufficient magnitude to do some harm to low-lying continental coasts, provided the ice plunged suddenly into the sea; but otherwise the displacement of the water would distribute itself over the ocean and no evil effects would be produced.

TALES OF ANCIENT CIVILIZATION

Egypt—VIII

Thebes, and a Story of the Reign of Ramses III.

The history of ancient Thebes is to be read in the remains of her monuments. At some distance from the banks of the river Nile they yet rear their stately pile, and tell even to the most careless passerby something of the story of proud and mighty days forever gone. There is the temple of El-Uksur, with its great obelisk of red granite and its tall colonnades, the graceful obelisk, with its marvelous hieroglyphics, part of the great temple built by Queen Hatshepsut to the god of her fathers, Karnak, the memorial of Ramses II., greatest perhaps of all the Pharaohs, with its innumerable columns, its lofty halls, and its statues of the dead king; and the Valley of Sepulchres, mysterious and splendid. It is on the walls of the cells on either side of the passage to the great sepulchre of Ramses III., that the interesting pictures illustrative of Theban life and customs were found in such profusion.

But many hundred years before the Christian era, Thebes was at the height of her glory. It was here that the Pharaohs had their royal residence. In the temple at Thebes they were crowned, and in the Tombs of the Kings, on the outskirts of the city, they were laid to rest.

A large and diverse population filled the city then, for intermarriage with neighboring peoples had produced a motley race. "Within the boundary walls of Thebes extended whole suburbs, more or less densely populated and prosperous, through which ran avenues of sphinxes, connecting together the chief boroughs of which the city was composed. On

every side might have been seen the same collection of low, grey huts, separated from each other by a muddy pool, where the cattle were wont to drink and the women to draw water; long streets lined with high houses, irregularly shaped open spaces, bazaars, gardens, courtyards and shabby looking palaces, which, presenting a plain and unadorned exterior, contained within them the refinements of luxury and the comforts of wealth."

The palaces in which the kings made their homes were large and rambling as in older days, but far more beautifully finished inside and furnished with sumptuous quarters for the Pharaoh, a harem of gracious proportions, beautifully decorated, and separate apartments for slaves and servants. The furniture was rich and heavy, beds, armchairs and seats of all kinds were made of rare woods, inlaid with ivory and gold and sometimes precious stones. They were intricately carved as well, and upholstered in gay colors. Rugs and cushions were of many-hued Asiatic woods, or of homespun material, dyed in Chaldean patterns, the linen was of the finest, and the small army of laundresses, retained by every rich householder, kept it in an immaculate condition. The plate on the table of these old-time royalties was of gold and silver, beautifully polished and engraved.

It was in just such a palace as this that King Ramses III. lived and governed Egypt with a firm but kindly hand. It was his ambition to treat all of his people fairly, that it might not be said of him that he was an unjust or unmerciful monarch. If the feudal lords or those in authority abused their privileges, their rank and titles were taken from them, and a better man given their high position. Ramses loved to make his cities beautiful, and he had trees planted in great profusion, to afford a rest and shelter from the heat, and to gladden the eyes of the beholder. Such peace and tranquility reigned in Egypt during the latter years of his life that it was his boast that a woman might walk anywhere alone and be wholly unmolested.

But if Ramses' kingdom was at peace, his domestic life was a troubled one. His queen was Isis, and by her he had several children, legitimate heirs to the throne; but a wife of the secondary rank, Th' by name, had a son whom she wished to place upon the throne, and a conspiracy was formed to put Ramses to death. Certain waxen images were made and placed secretly in the harem, after incantations had been pronounced that were supposed to be invested with death-dealing powers, and the king looking upon them to fall ill, and gradually fade away. The king, however, became aware of the plot against his life, and the result of his investigations brought forty-six criminals to light, six women and forty men, all of whom were executed. For Pentaurit himself, the worst punishment of all was reserved, and a mummy disinterred at Deir-el-Bahari tells us the manner of it.

"The coffin in which it was placed was very plain, painted white and without inscription; the customary removal of the entrails had not been effected, but the body was covered with a thick layer of natron, which was applied even to the skin itself and secured by wrappings. It makes one's flesh creep to look at it; the hands and feet are tied by strong bands, and are curled up as if in intolerable pain—the chest is contracted, the head is thrown back, the face is contorted in a hideous grimace—and the mouth is open as if to give utterance to a last despairing cry. The conviction is borne in upon us that the man was invested while still alive with the wrappings of the dead. Is this the mummy of Pentaurit, or of some other prince as culpable as he was, and condemned to this frightful punishment?"

After this terrible affair, Ramses' reign passed in peace.

THE VEGETABLE KINGDOM

IV.

There are upwards of 200,000 known species of plants. These have been divided by botanists into 13 primary divisions, 30 classes and 600 families. They have also been divided into 57 orders. It is obvious that in articles intended as a mere suggestion of prominent features of vegetable life, no attempt can be made to show wherein these several classes differ, and these things have been mentioned only to convey a general idea of the complexity of vegetable life and how it has expanded from the time when the first water slimes appeared on the surface of the cooling ocean. There is no reason to suppose that, as is the case with animals, any of the species are dying out, on the contrary, it is likely that by cross-fertilization through the instrumentality of insects, winds or the proximity of plants to each other, new varieties are being continually produced.

Seeing how important is the part played by plant life in relation to human life, it may not be devoid of interest if something is said of the history of the great food plants. Wheat may be mentioned first. Its first use as a food plant is lost in the mists of antiquity, although there is some reason to believe that what is unusually thought to have been wheat when spoken of in ancient history was a somewhat different grain from what we know by that name. Wheat is supposed to have originated in Central Asia, but this is little more than a guess founded upon the current belief that mankind originated in that part of the world. Some years ago it was discovered that a certain wild grain growing naturally in some of the coun-

tries bordering on the Mediterranean becomes wheat after cultivation, from which it may be inferred that this grain is the product of cultivation.

Maize, or Indian corn, is commonly supposed to be of American origin, and undoubtedly the grain now cultivated was derived originally, so far as is known historically, from the plants cultivated by the Indians before the coming of Columbus. There is, however, in an ancient Chinese book now in a library in Paris, a representation of this plant, and it is alleged that grains of maize have been found in ruined buildings of ancient Athens. Some writers claim that it was the "corn" of the Scriptures; others contend that this was a variety of wheat that has recently been brought to the attention of scientific cultivators, a variety that yields luxuriantly upon arid land.

Barley was cultivated both in Europe and Asia in prehistoric times, and seems to have altered very little in all the centuries that it has afforded food for man and a more or less intoxicating drink. No date can be fixed when in the countries surrounding the Mediterranean this grain was not used for food or for the manufacture of beer. Any effort to determine its origin would be hopeless.

Rye is relatively modern as a food plant. Its native place is the higher lands around the Caspian Sea and in the Crimea. Its use dates from some time before the Christian Era, but it does not appear to have been cultivated until a time well within the historical period. Scholars have not been able to identify rye with any of the more ancient references to grain.

Oats formed a very prominent place in the dietary of the tribes whom the Romans called Barbarians. This grain does not appear to have been known to the Jews in ancient days, and although the Greeks and Romans had heard of it, they did not cultivate it, at least to any great extent. This was doubtless due in part to the unsuitability of the climate of Mediterranean countries for its production, and possibly also to the fact that as a food it was not adapted for use by people not subject to extremes of cold.

Spelt is a grain of the wheat family, growing in parts of southern Europe and eastern Asia on poor soil. It is used extensively for food, and is the plant from which the Bedouin Arabs make flour.

Rice is of East Indian origin, but it is cultivated in all parts of the world where the climate is suitable. It is the staple food of perhaps half of the inhabitants of the globe.

A grain called fundi is largely grown in western Africa for food, and teff and tucouson, two edible grains, are used extensively in Abyssinia.

The potato is a native of tropical America, and Humboldt expressed doubts if it ever existed in a wild state, but modern investigators seem to think they have proved him to have been in error. Be this as it may, it is noteworthy that this plant, now so largely used by civilized mankind, was up to three hundred and fifty years ago practically unknown outside of the area mentioned. Even after its introduction into Europe, the potato was looked upon simply as a curiosity. As late as 1719 it was esteemed to be of such little value that it is not mentioned in the "Complete Gardener" of that date. Shortly after this it began to be looked upon as a suitable food for swine. Towards the close of the previous century, the potato had been introduced into Ireland in the hope that it would serve as a preventative of famine, and from that island its cultivation spread to England. Hence the term Irish potatoes, used to distinguish the common potato from the sweet potato, which is a tuber of an entirely different species.

The turnip is native over a wide extent of country from India on the east to Britain on the west. It has been used as a food in India from prehistoric times, but its cultivation in the rest of the world is very modern.

The beet, though a native of southern Europe, does not appear to have been long used as an article of food. The carrot is also a native of that part of the world, but its cultivation for food has been maintained for a longer period than the beet, and its use is far more widespread. It is much used in various parts of Asia, the ease with which it may be grown doubtless being one of the reasons for its popularity, although its nutritious properties make it worthy of high esteem.

Although tobacco is native both in Asia and America, there is great doubt if it was used for any purpose in the Old World before the discovery of America by Columbus. There are extant old Chinese drawings representing what seem to be tobacco pipes, and there is some reason to believe that the Chinese smoked tobacco from time immemorial, but its use does not seem to have extended to other countries. The smoking of tobacco is distinctly an American habit, the natives thus employing it over nearly the whole continent. On the introduction of the practice into Europe, it spread with astonishing rapidity, gaining almost immediately a strong hold upon the people of the East. It resembles wheat and Indian corn in one interesting particular, for, like them, though it is a native of tropical countries, it thrives in almost all latitudes where mankind make permanent homes. Its cultivation and preparation for use gives employment to millions of people.

This brief and superficial review shows how much more extensively modern men have laid under tribute the vegetable kingdom for their use than their ancestors did.