

An Hour with the Editor

THE ROMAN EMPERORS

Claudius was succeeded by Aurelian. The career of this emperor illustrates the irrepressibility of talent. He was the son of a peasant, and he took his name from the fact that his father leased a small farm from Aurelius, a rich senator. He enlisted in the army as a common soldier, and by sheer merit rose from rank to rank until he became commander-in-chief of the cavalry. He was made consul, and married the daughter of a rich senator, in whose veins flowed the blood of the Emperor Trajan. His strength and valor were of the highest. In one battle with the Sarmatians he killed no less than forty-eight men with his own hand. He was wise, honorable and industrious. As a disciplinarian he was rigid, yet always kind to those who strove to comply with the orders which he deemed necessary to make the military organization of Rome what it ought to be.

On the death of Claudius, the Goths resolved upon renewing their invasion of Roman territory. The Vandals joined them, and the combined host made a descent upon the Danubian frontier. Aurelian hastened to meet them, and in a battle, which was prolonged from early morning until nightfall, he gained a conspicuous victory. The Goths sued for peace, and it was granted, the principal condition being that they should furnish Rome with a force of 2,000 cavalry. Aurelian, to cement the new friendship, required also that a large number of Gothic young men and girls should be sent to Rome as hostages. The youths he formed into a personal body-guard; the maidens were educated and in due time were married to sons of some of the best Roman families. On his part Aurelian agreed to abandon the remote province of Dacia. He was doubtless influenced to this course by two considerations. One of them was the difficulty of defending so remote a territory, and the other a recognition of the fact that the Goths and Vandals absolutely needed room for expansion. He was convinced that a peaceful frontier, even if somewhat restricted, was better than a disputed territory. Time showed the wisdom of his course. Many of the Romans, who had settled in Dacia, remained there under their new Gothic masters. They taught the barbarians agriculture and the conveniences of civilized life, and thus created such a friendly feeling towards Rome that Dacia in years to come became one of the strongest defenses of the Empire.

While these things were transpiring in the northeast, on the north the Alamanni invaded Italy with a powerful force. Against them Aurelian marched with great speed and secrecy. He did not seek to oppose their advance, but awaited their return, for it was easier to reach their rear from Dacia than their front. The Alamanni conducted their campaign in a series of raids, and in returning from one of these they found themselves confronted by a Roman army, which was so placed as to be able to close in upon them from all sides. There was no means of escape, and they sued for peace. Aurelian met their chiefs at a function prepared so as to impress them with the greatness and majesty of Rome. Everything that could be devised to make a splendid display was resorted to, and the central figure of all was Aurelian, magnificently clad, his majestic figure setting off his splendid ornaments. So impressed were the barbarian chiefs, that they prostrated themselves, and only rose to their feet at his command. They soon renewed their confidence and informed Aurelian of the terms upon which they were willing to form an alliance with Rome. His reply was stern and imperious. Nothing but absolute surrender would satisfy him. Before anything further could be done, Aurelian was called away to Pannonia, and the war was so badly conducted by his lieutenants that the Alamanni threatened to become masters of northern Italy. Recalled to the scene by a long story of disaster, Aurelian exhibited his usual activity, and after varying results was successful. He achieved so severe a defeat on the occasion of the first collision with the Alamanni that fears were expressed in Rome that the end of the Empire had come. Another battle was more favorable to the Emperor, and in a third he completely vanquished the invaders. It is doubtful if the history of war discloses a more remarkable campaign than that waged by Aurelian in northern Italy in this winter of 270-71. Power was wrested from the jaws of death in such a notable way. Never was skill and courage of a commander better exemplified.

One lesson which this campaign taught Aurelian was that Rome itself was no longer immune from danger. He therefore proceeded to erect walls around the city. Their length was 21 miles. It is said that the people of Rome say this work began and carried on with feelings of dread, for they realized that it implied diminution of their own relative strength as compared with that of the barbarians. For nearly a thousand years the army had been able to keep the foes of Rome at bay; now it was necessary, even by an emperor whose personal valor and skill were beyond all question, to fortify the city itself. It was evident to men who saw far ahead that the end of the Empire was approaching.

Aurelian next turned his attention to Gaul, which for years had been in a state of semi-independence. A woman known as Victoria, possessed of many remarkable abilities, was the real leader of the Gallic insurrection. She caused Trepius to assume the ensigns of royalty, and if he had not basely deserted her, she might have won him success. She died, it is

said, because her heart was broken by the ingratitude of the man she had placed in power. For four or five years he ruled Gaul, Spain and Britain; but when Aurelian marched against him, he displayed a base pusillanimity. He was mean enough to lay his plans for the defeat of his own army, by whom he was both despised and hated. In the battle which ensued the Gauls, the Franks and the Batavians fought with splendid courage, but to no avail. Aurelian was wholly successful, but in his triumph he was generous, permitting those of the barbarians, who so desired, to cross the Rhine into territory which Rome did not claim. This single battle restored peace to all the land from the Firth of Forth to the Straits of Gibraltar.

THE HUMAN WILL

There is a Scotch song which says, "Whatever men dare they may do," and perhaps there is quite as much truth as poetry in the line. The human will is a dynamic force, the measure of which no one has ever determined. Napoleon furnished the most striking modern illustration of the potency of the will. He seemed able by the sheer force of his personality to shape people and even events to meet his desires. As sketched in contemporary memoirs, he was everything else than an imposing figure. He was small in stature, sombre in countenance, moody, disagreeable, nervous, superstitious. He had an actual fear of certain people. Few men met with more terrible defeats than he, even before the final catastrophe of Waterloo, yet he was able to retain the confidence of France in hours of disaster and to inspire alarm throughout Europe when his fortunes seemed at their lowest ebb. Archbishop Whately, in his charming Essay entitled "Historic Doubts Relative to Napoleon Buonaparte," sets forth the marvelous inconsistencies in the career of this remarkable man, and though written for no such purpose, it leaves upon the mind the impression that there was in him a force of some kind that was sufficient to enable him to bend everything to suit his wishes as long as he was able to exercise it. Bismarck furnishes another example of the tremendous force of the human will when directed continuously to a particular object. Other historic illustrations of the same thing may occur to readers, and probably no one will dispute that in the case of the leaders of humanity the will of an individual has played a very important part, that it has at times been the determining force in national life. But have we not also evidence that in minor affairs the effect of the will is almost limitless? Is it not true that most men accomplish what they have the courage to attempt and the firmness to persist in?

Among all our qualities there is nothing more wonderful than the power of resolution. It is creative, for a fixed resolve is as much a thing as any material object. There are men living in every community who have made up their minds to do certain things, and that determination is an actual factor in the life of the community. The measure of the progress of a city is the determination of its citizens. A whole community united in a common object is very likely to accomplish it, if not exactly as it was planned, then in some other and possibly more beneficial way. "You cannot check Manitoba," said Sir John Macdonald on one occasion. He recognized the dynamic force of popular resolve, and yielded to it. In a recent magazine article dealing with the experiences of a well-known pugilist, mention was made of the fact that he seemed to possess an almost superhuman ability to "take punishment." He himself said that he went into a fight with only one thought, namely, to win. Every feeling in his body was dominated by his will, and that he was victorious frequently for no other reason than that he was resolved not to be defeated. Overmatched in strength and pugilistic ability by an opponent, his indomitable will often carried him through successfully. Every athlete knows how much the will has to do with the performance of exceptional feats. In fact there is hardly a phase of physical activity in which the power of the will is not of tremendous importance.

How shall we attempt to define this extraordinary power? The books do not help us much here. No two writers seem able to agree upon a definition, and some of them go so far as to suggest that it is indefinable. It may be that it is a faculty that will always evade definition. "The power of performing voluntary acts" is one definition that has been suggested; but this is not fundamental, for if an act is voluntary there must of necessity be will behind it. The will has nothing to do with certain of our actions. A newly-born babe breathes, not because it wills the act, but because the act is wholly independent of the will. We can only, on reaching majority and in possession of our full powers, refrain from breathing for a brief space. Probably no one could by the effort of the will cease wholly from breathing. We hear without an effort of the will; we also see without any such effort. It is doubtful if by the exercise of the will we can increase or diminish our powers of hearing or sight. The independence of these primary faculties of our nature from the influence of the will has led some philosophers to assert that the will is the result of experience, something that comes to us with the years, but with all deference to those who hold this view, it is very much open to question. The will can hardly be otherwise than innate, although in very early infancy it may be dormant, as other powers of our nature are. Perhaps if we should say that the will is the expression of the human personality, as distinct from its

physical expression, we might not be very far astray. It is the Ego; it is that which we do not and cannot share with others, which is ourselves, the very essence of our conscious existence. It is the spark of divinity that is within us.

That all men do not possess this power in the same degree is known to every one. In some mysterious way it is associated with our physical existence. In an equally mysterious way it can be controlled by that influence we call hypnotism. Wills that are weak can be swayed by wills that are strong. These facts show that the human will is a real entity, and its existence seems to be the most potent argument against materialism. If the will only operated to enable us to do things which seem desirable, there might be some justification for the contention that it is merely an expression of physical power, subtle indeed in its operations, but yet merely physical. But the will enables us to refrain from doing things which seem to be the natural expression of our physical desires and powers. It enables us to overcome the weakness of our physical powers. It is the one real thing about us, and must of necessity be distinct from our physical powers.

TALES OF OLD CIVILIZATIONS

Egypt—III.

Contemporaneous with the Egyptian civilization was that of ancient Chaldea. Let us, for the sake of comparison, glance for a little while at the semi-legendary history of this almost-forgotten country, whose stories have come down to us, as in the case of Egypt, in the sculpturings and hieroglyphics carved by long-dead hands.

The rich alluvial plain formed by the deposits of the great rivers Euphrates and Tigris, with the mountains of Elam to the eastern boundary, the sea-marshes on the south, and westward the civilization of Babylon, was named Chaldea. History first speaks of Chaldeans as coming from the Persian Gulf about the ninth century B. C., and slowly moving northwards, gradually acquiring possession of the country, until, under Merodach-Baladan, they made themselves masters of Babylon, and henceforth formed so important an element in the population of the country as, in later days, to give their name to the whole of it. It was in Nebuchadnezzar's time that the whole East was overrun by the Chaldean armies, and Egypt was invaded, and that wonderful old city on the banks of the Euphrates was without a rival in the world.

But we are going to look far into the past, the dim legendary past of Chaldea, and not concern ourselves with her comparatively modern history. We are going to read some of her earliest stories.

Now Egypt has no narrative parallel to that in our own Bible which relates the story of the flood, but the old Chaldean monuments, on the contrary, tell a story very similar to our own, and it is that story of the deluge that we purpose to set down here.

It was in the days when Chaldea was ruled over by semi-divine personages, and kings reigned for hundreds, even thousands of years, and waxed very rich and powerful. Because of this, they and their people became very vain-glorious and boastful, and neglected to sacrifice or look to the gods for help. So Ea, the sovereign of the waters and the personification of wisdom, determined upon a dreadful punishment.

There was living in Shurippak at this time a good king by the name of Shamashnapsitum, and him the gods determined should be spared. So Ea warned him to "construct a wooden house, build a ship, abandon thy goods, seek life; throw away thy possessions, save thy life, and place in the vessel all the seed of life." He was told of what proportions to build the vessel, and he was given permission to warn the people of his kingdom that danger was about to befall them. But they took no heed of him. We will give the story as it appears in the old inscriptions.

"As soon as the morning became clear, a black cloud arose from the foundations of heaven. Ramman growled in its bosom; Nebo and Marduk ran before it—ran like two throne-bearers over hill and dale. Nera the Great tore up the stake by which the ark was moored. Ninib came up quickly; he began the attack; the Annunaki raised their torches and made the earth to tremble at their brilliancy; the tempest of Ramana scaled the heaven, changed all the light to darkness, flooded the earth like a lake. For a whole day the hurricane raged, and blew violently over the mountains and over the country; the tempest rushed upon men like the shock of an army; brother no longer beheld brother, men recognized each other no more. In heaven the gods were afraid of the deluge; they betook themselves to flight, they clambered to the firmament of Anu; the gods, howling like dogs, covered upon the parapet. Ishtar wailed like a woman in travail; she cried out, the lady of life, the goddess with the beautiful voice: 'The past returns to clay, because I have prophesied evil before the gods—and these to whom I have given birth, what are they? Like the spawn of the fish they encumber the sea.' The gods wept with her over the affair of the Annunaki. . . . Six days and nights the wind continued, the deluge and the tempest raged. The seventh day at daybreak the storm abated; the deluge which had carried on warfare like an army, ceased, the sea became calm and the hurricane disappeared, the deluge ceased. I surveyed the sea with my eyes, raising my voice; but all mankind had returned to clay,

neither fields nor woods could be distinguished. I opened the hatchway and the light fell upon my face; I sank down, I covered, I wept, and my tears ran down my cheeks, when I beheld the world all terror and all sea. At the end of twelve days a point of land stood up from the waters, the ship touched the land of Nisir; the mountain of Nisir stopped the ship and permitted it to float no longer. One day, two days the mountain of Nisir permitted the ship the float no longer. Five days, six days the mountain of Nisir stopped the ship and permitted it to float no longer. The seventh day at dawn I took out a dove and let it go; the dove went, turned about, and as there was no place to alight upon, came back. I took out a swallow and let it go; the swallow went, turned about, and as there was no place for it to alight upon, came back. I took out a raven and let it go; the raven went and saw that the water had abated, and came near the ship, croaking and flapping its wings, and returned no more."

And when at last the waters had abated so that there was no longer any need to remain in the ark, Shamashnapsitum "sent forth the inhabitants of the ark towards the four winds," and made a propitiatory offering to the gods. The gods in return invested him with divine powers, and honored his wife in a similar manner. As for the ark, for many hundred years after the deluge it remains where they lay on one of the summits of the Gordyean mountains were regarded as sacred and miraculous relics, and thousands of people made pilgrimages to see them, to scrape off a bit of the bitumen that covered the hull and make of it "amulets of sovereign virtue against evil spells."

RUBBER

If you are of middle age, the chances are that your great-grandfather never saw a piece of rubber. Of course there are many other things in common use today that he never saw or even heard of, but rubber is a natural product, and it is amazing to think that people of his day found so little use for it that, except when small pieces were kept as curios in the homes of sailors who had been to South America, it was only to be found a hundred years ago in civilized lands in some artists' studios, who had fragments of it wherewith to rub out pencil marks. Europeans had never heard of rubber before Columbus brought home some of it on one of his voyages; but even when it had become known, the ingenuity of our ancestors was three centuries in discovering any practical use for it, and then they only hit upon the use above mentioned. About seventy years ago it began to appear likely that this "gum elastic," as it was once called, could be put to some general use. At that time ship captains began to bring to Massachusetts crude shoes made in Brazil by Indians out of rubber. About that time also Goodyear began experimenting in "vulcanizing" rubber, that is in melting it with sulphur, which was the real beginning of the introduction of rubber into the arts. It is interesting to know that this discovery was made almost simultaneously in England and America, the English discoverer being named Hancock. About this time also a Scotsman, named Mackintosh, invented the waterproof material, to which he gave his own name, but our modern mackintoshes are very different from those made by him. He only covered cloth with rubber dissolved in turpentine. The name has survived the process.

As soon as it was known that by the process of vulcanizing rubber could be made of any degree of desired hardness, the uses for it began to multiply; but it is interesting to note that some of them, which now appear the most self-evident, were not at once thought of. For example, several years elapsed before it occurred to any one that rubber could be used in the form of tubing to convey liquids. People who used to "run with the machine" in the old days of volunteer fire departments, will remember the hose made of leather and riveted with copper which was then in use. One of the first uses to which rubber was extensively put was the manufacture of combs. In this solid form the commercial name of rubber is vulcanite. Its use for this purpose has been greatly cut into by celluloid. For a time it was thought that gutta percha, which, though similar to rubber in some respects, is in others quite different from it, was the more important gum of the two; but with the laying of the first Atlantic cable it began to be seen that rubber had before it almost an illimitable future. It was used as a covering for the copper strands, which carried the electric current, being protected from wear and tear by a covering of wire. Rubber footwear came in common use about 1850, and for a time it had a great vogue. It then lost popularity, and although the number of "rubbers" now made is very much larger than ever, this kind of protection for the feet has not retained the hold upon public favor that it once had.

A great revolution in the use of rubber occurred when an Irishman named Dunlop, living in Dublin, invented the rubber tire. It took him a long time, but at length he succeeded in making a tire, which he put only a disc of wood, and rolled round his yard as a boy trundles a hoop. Then he made a set of tires for his velocipede, as we used to call bicycles when they first came out, and was thus the first man to ride upon cushions of air. The invention was acquired by a man named Du Clos, who placed it on the market. This invention made the motor car a possibility, for as every one knows, such a car would be well-nigh useless without pneumatic tires.

When we reflect upon what has been done and can be done with bicycles, motorcycles and motor cars, it seems as if we must give Dunlop the credit for one of the greatest inventions of all time. The uses to which rubber are now put are almost innumerable. It enters into almost every department of human industry.

The scientific name of rubber is caoutchouc. The rubber tree will grow in many parts of the Torrid Zone but its quality greatly varies with different localities. The best comes from South America, and the American supply is also the largest. Africa comes next, and it is interesting to note that whereas American rubber comes from a lofty tree, that from Africa is produced chiefly by a climbing shrub. More than a hundred species of plants yield rubber, and among them are lettuce and poppies. Very considerable rubber is produced in Assam and the adjacent Australia. No general rule can be laid down as to when rubber yielding trees and shrubs will be productive, the time varying from two to twenty-five years.

Although rubber is produced in so many countries, and the cultivation of rubber trees and shrubs is a very easy matter, fear is expressed that the demand will soon outstrip the supply. Moreover, common as it is, rubber is a expensive, as every owner of a motor car knows. Hence there has been much experimenting in the production of an artificial rubber. For a long time this seemed to be impossible, but a recent announcement has been made to the effect that it has been produced by treating turpentine. And yet it is only a laboratory product, but the statement is made that it has reached the stage which the manufacture of artificial indigo had when it was first announced. This was not very long ago, and at the time the cultivation of the indigo plant was rapidly increasing. A chemist discovered how to make this dye from coal-tar and the manufactured article has almost driven the natural article out of consumption, it now being used only for very special dyeing. So it may be in the course of a few years with rubber. A manufactured article may supply all that is needed for the coarser uses to which this material is put.

ECONOMICS FOR THE GENERAL READER

"I have tried," Professor F. W. Taussig says in the introduction to his "Principles of Economics," "to state the principles of economics in such form that they shall be comprehensible to an educated and intelligent person who has not before made any systematic study of the subject." The need of a work along just this line is very apparent. It is a more or less common assumption that economics is something to be studied by specialists, to be taken up in a particular line of investigation. Why this belief should have been so widely accepted is almost inconceivable, for the subject of economics touches every man intimately and a clear understanding of it will do much toward bringing about better industrial and social conditions. The majority of the books on the science, however, have been written for the specialist, for investigators, and it is in this that Professor Taussig's work is a new departure. He has had in mind those who are interested in economics whether they be business men, college students, professors or scientists.

Professor Taussig does not avoid difficulties or severe reasoning, but centres his attention on the larger problems and the important trains of reasoning, and treats these deliberately and fully. The refinements which play a large part in the discussion which economic writers carry on with each other are neglected. The book deals with the present day. There is in it very little of economic history, very little about the phenomena of semi-civilized or barbarian communities. The experiences and problems of the countries of advanced civilization are primarily kept in view; American problems naturally receive considerable attention, though Professor Taussig is chiefly concerned with principles which are of general application in all the leading countries of modern times.

The text of the volume is divided into eight books considering The Organization of Production, Value and Exchange, Money and the Mechanism of Exchange, International Trade, The Distribution of Wealth, Problems of Labor, Problems of Economic Organization and Taxation. These books are in turn divided into chapters where the subjects are taken up in detail.

"Yes, sir, in a year from now this Amalgamated Balloon stock will be worth ten thousand dollars, and I'll sell it to you for fifty cents."

"If it'll be worth ten thousand dollars in a year from now, why don't you keep it yourself?"

A private who had fought bravely during the Boer war had occasion to seek employment of a well known general. This private had the misfortune to lose his nose while in action.

The general was so tickled with the appearance of the man that he burst into a loud laughter, to the discomfiture of the soldier. When his laughter had subsided, the general said:

"My good fellow, where did you lose your nose?"

"I lost my nose, sir," said the nettled private, "in the same battle that you lost your head."