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No. 3



Youth Comes to Re-Shape the World

Edited by Annie Besant, D. L., and G. S. Arundale, M. A., LL. B.

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ANNIE BESANT AND G. S. ARUNDALE, *Editors*

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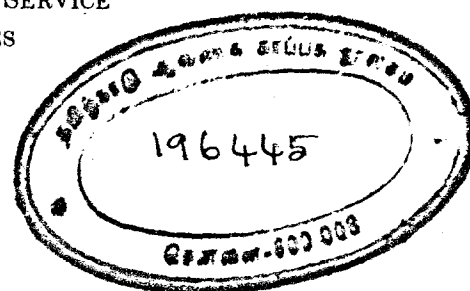
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From The Front

BY ANNIE BESANT, D. L.

THE Order of the Round Table was formed by Herbert Whyte, who came into the Theosophical Society with his mother when he was a boy. He was one of the Lotus Circle, and became one of the most earnest Theosophical workers in London. He was shot through the forehead, leading his men to capture a hill just beyond Jerusalem, after the taking of the City in the Great War. His lasting memorial is this Order of the Round Table, which appeals strongly to lads and lasses of the West, the Round Table of the Knights of King Arthur, the stainless King, with its motto: "Live Pure, Speak True, Right Wrong, Follow the King." "The King" is the Perfect Man. It has spread into twenty-three countries, each country having a Chief Knight. Its *Annual*, in English and French, has just reached me, and I take its messages from our joint Editor, G. S. Arundale, Knight of Honor, Parsifal, from Shrimati Rukmini Arundale, Knight Galahad, and C. Jinarâjadâsa, Knight Raja. They may well be taken as messages "From the Front," as these three are there, working for the young aspirants to the Knighthood of the Spirit.

A Message from Dr. Arundale

Knight of Honor, Parsifal

I am very glad to send my most brotherly greetings to all comrades of the Round Table in every part of the world. When I think of you all, scattered over the surface of the globe, members of many races and many faiths, I begin to wish we could some day have a great

big gathering in some central place, where we could consolidate ourselves, know each other, and make our Round Table the true, modern counterpart of the Round Table of days gone by. Some of you will remember that last year I wrote of King Arthur as a historical personage, declaring my belief that he would again lead a Round Table in this twentieth century. Our Round Table is the reincarnation of his, and I know that many of its present members were connected with the venerable original. Many of the ancient, gallant band have returned in readiness for the call of their Chief; and, in the years to come, the Round Table of to-day will achieve as gallant, as knightly, as chivalrous deeds, as have made the memory of its predecessor glorious. The knights of the Round Table of olden time will repeat their knightliness, and King Arthur himself will once again make beautiful history, to be marvelled at by our successors.

Let us live in the marvellous visions these great events-to-be must surely conjure up. Let us be eagerly expectant of our Arthur. Let us undertake a strenuous vigil of self-preparation, so as to be worthy of him and supple to his leadership. Let us ever remember, amidst the drudgery and humdrumness of every-day life, that we are living in extraordinary times, in wonderful times, nay, in marvellous times; that our Lord the Deliverer is very near to us; that He counts us among those whom He has sent into this world to prepare the way for Him.



SHRIMATI RUKMINI ARUNDALE
(Knight Galahad of India)

Let us be exceeding glad that we are of the company of Arthur the King, once again his comrades in the Eternal Adventure. Let us rejoice at all these gifts, and go on our way gladly—be that way smooth or rough. Be of good cheer, happy, confident—let come what may.

A Message from Shrimati Rukmini Arundale

Knight Galahad of India

Till He Comes!

It is very difficult to define the characteristics of a true Knight of the Round Table. But to each one it means something beautiful. When I think of this Round Table one thought strikes me specially, and that is—that we may be true Knights—Chivalrous, Pure and Strong—when the KING, the Teacher of all, the Christ, comes to Earth again. He will need such knights whom He can trust, and as we have joined the Round Table with Devotion to Him, we have the privilege of having the opportunity to serve Him and to prepare ourselves for Him. We have the seed of such a mighty Service, and surely shall we blossom forth into Great Knights of the KING—even greater, more wonderful than the Knights of the Round Table of King Arthur.

Our work lies in preparing for such an opportunity. Unless we begin now to work, we are not going to be anything wonderful when He comes. We must try and make ourselves as useful as we can by developing any little gift that we have, and by individual Self-Preparation. It is very important that we should be fearless in proclaiming and expressing what we know and think. We must believe in a thing only if we feel convinced, not because it has been the belief of our forefathers. When the Great Teacher comes we must even be able to give up *All* for His sake, and, although we think we will do so, it is not going to be easy, unless we begin from now not to be a reflection of our surroundings. To my mind, the first great quality of a Knight is Fearlessness, Courage to stand upon our own legs and challenge the World, even if we are alone. Naturally, side by side with this quality should be a great Compassion, so that we may use that courage in helping to lift the world and not to crush it.

Such qualities, combined with practical Service, should be the greatest offering we can make to our KING. Let us begin Now, you and I, while we are young, and pray that we may recognise Him, whatever Form He may take, whatever Teaching He may give, through all the illusions of the Outer Beliefs that we may have. Till He comes, it is for you and me to prove ourselves His Knights through the work that we have to do in the many fields of activity. If we live true and pure we *shall* recognise Him, Who is Himself the embodiment of Truth and Purity. May the Blessing of our Lord radiate through us all!

Message from C Jinarajadasa

Knight of Honor, Raja

Finding The King

"Who is the KING?" "The Perfect Man." Knights, Companions, and Pages of the Round Table are pledged to find Him. The more quickly we find Him, the more powerful will be our service. It is both easy and difficult to find the KING.

It is easy to find the KING, if we will look where He is looking for us. For He is, indeed, looking for us, quite as anxious to find us as we are to find Him. But, if we look for Him in those places where He is not looking for us, then our search is long, weary, and unfruitful.

The KING is looking for us in our hearts. It is there He wants to dwell. Indeed, He is dwelling there already, but we do not know that fact, and that is why we are still looking for Him. Dwelling already in our hearts. He is trying to make us know that fact. So when we say we are trying to "Find the KING," we really mean that we are training ourselves to salute the KING, who is already in our hearts.

We salute the KING most swiftly as we *feel with* another. "To feel with another" is summed up in one Greek word, "Sympathy," but the English phrase is better as it speaks more clearly. The first step to feeling with another is to say, regarding everyone, not only the person who likes us, but also the person who dislikes us: "He is myself."

It is beautiful to say about one we love, "He is myself," though what we really mean is: "I long to be what he is." It is hard to say about one we dislike: "He is myself." But that

also is true. What I dislike in him is an ugly part of Myself which I see reflected in him. He is only a mirror of Myself. So it is always true to say, about friend or foe: "He is myself."

When we learn to say with the mind, about everyone and everything—not only men and women, but also animals, plants, hills and fields, seas and mountains: "That is myself," then we shall slowly learn to *feel with* another. We shall be full of pity when he suffers, even if he is our enemy, and full of gladness when he is happy.

Soon after learning this lesson, when a person irritates us, and we are going to be angry with him, our mind will prompt us: "He is yourself," and we shall keep back the angry word. A little while after, we shall not allow the angry

thought to be born; then the KING will show us His Face.

To salute everyone and everything with utmost courtesy, because that person or thing and ourselves are one and the same Divine Life, is one way of "Finding the KING".

C. JINARAJADASA

(*Knight of Honor, Raja*)

So we follow these with the story of King Arthur, that some people think is a myth, but that some others know to be a fact. The Knights of the Round Table with their King sought the Vision of the Holy Grail, as the young Knights of to-day, with their old King, whom they will know one day, seek now that same Vision, the Cup, the Holy Grail, Symbol of the World Teacher.

Mining the Ocean for its Salts

Bromine from Sea Water

The importance of the Bromine industry has, of late years, grown enormously, and as its supply has not been proportionately increased to its growing demand, the price has risen, and new sources for it are being investigated. Bromine plays an important part in the Pharmacopœia as the various medicinal bromides; it also has uses in certain industrial processes, but by far the most important use is in the making of photographic film, and it is the immense development of the film industry that is the chief cause for its greatly increased demand to-day.

The Manufacture of Bromine

Hitherto Bromine has been obtained as a by-product in the manufacture of potassium and other alkaline salts. It was, however, originally discovered in seawater by Balard in 1826, and it is now proposed to obtain it direct from that source.

The latest news from America is that they are intending to "mine" the ocean for the valuable

materials it holds in solution, and a steamship, delighting in the name of *Ethyl*, has already been fitted out and, we presume, christened by chemists, to cruise in mid-ocean and take in millions of gallons of sea water daily to extract the bromine from it at the rate of some twenty-four grains to each gallon of water. By this means about fifty tons of bromine will be obtained per month, and as hitherto the total world's output for a year has only been 2,000 tons, this one venture alone will represent an immense increase in supply.

It is probable that other researches will be carried out at the same time aboard the good ship *Ethyl*. It was an old idea of the late Sir William Ramsay that gold could be extracted from sea water, and we hear that this problem is, at this very moment, occupying the very practical mind of the great German chemist, Haber, who perfected the process for the fixation of atmospheric nitrogen, and so we may hear more anon of these matters.

In The World's Service

King Arthur of Britain

EARLY every great country has preserved its tradition of a Perfect King who once reigned, coming mysteriously and passing mysteriously, with a promise of reappearance at his people's need. Critics are hard put to it to decide whether or not these stories have any historical basis, but the general view now taken is that they have, and that succeeding generations have unconsciously added a mystical setting to some singularly beautiful human life, till the Hero has become Divine. The fact seems to be that every king is an expression, more or less imperfect, of the One Eternal King, and that from time to time He sends into the world one who can be a fuller expression of Himself. Through such a one Divine Kingship shines so clearly that people become confused between personal and impersonal, and especially after the death of his body, the personal fades out before the greater glory behind. The "phantom king" has become hazy, indistinct of outline, while "the King stood out in heaven, crown'd". So it becomes intolerable to associate sordid earthly details, of birth and upbringing, with one in whom later the Divine has been revealed; only the personal man was born and died as other folks, and in this Man the personal has fallen away, till a miraculous birth and all sorts of mysterious accompaniments seem the natural veils with which reverent memory clothes his appearance in the world. So it is with the tale of King Arthur of Britain, whose name still rings in Cornwall, Wales and Scotland, and who has been the inspiration of Western Chivalry. Let us take the noble tale, without trying to sift myth from history, sure that the former is as true as the latter on its own plane of thought, or rather more true, for it reveals more of the Reality, in a world more real than ours.

In Britain, there were many chieftains, who acknowledged loose allegiance to one Over-lord, Uther the Pen-dragon. Rome had relinquished her hold on the Britons, since she had need of all her forces nearer home, and the land was demoralised by the sudden loosening of a strong authority over lawless barons, as well as by the far-spread havoc dealt by raiding pirates from the North, pagan ancestors of the English.

Uther was a man of strong passions and of ruthless will, and having fallen in love with Ygerne, the wife of Gorlois of Cornwall, he provoked a quarrel and slew that chief, and then besieged his lady in her Castle of Tintagil, forcing her at last to wed him. Not long after, still tarrying at Tintagil, Uther was stricken with mortal illness and died, none being present at his death but Merlin the Sage, and Bleys, who was Merlin's Master in magic. Uther had left no heir, so riot now held still more unchecked sway. But soon a rumor grew that, somewhere in Merlin's keeping, in safe obscurity during his years of weakness, was being reared an heir to Uther, born to him of Ygerne, or else mysteriously brought in a dragon-winged ship, and laid at the feet of Merlin, as he walked by the tempestuous sea, on the night when Uther died.

In due time, when long security had made the petty chiefs reckless in their lawlessness, and the people "longed for the Roman eagles, back again," there came a day when Merlin, as Chief-Druid of the land, called a Council of the Greatest, and produced to them a youth of radiant fairness as Uther's heir and their King. Despite the baron's opposition, the College of Druids was powerful enough, supported by the people, who eagerly welcomed the news, to have Arthur crowned, and a small band of stalwart Knights, who gave him their allegiance at sight, formed themselves into his bodyguard.

"Be thou the King, and we will work thy will, who love thee." These Knights he formed into the famous Order of the Round Table, "sworn to vows of utter hardihood, utter gentleness, and loving, utter faithfulness in love, and uttermost obedience to the King". For Arthur the mysterious Lady of the Lake, of wisdom greater even than Merlin's, had fashioned a wonderful sword, called Excalibur, that arose in men's sight from "the bosom of the Lake," to be retrieved by no hand but Arthur's. On one side of the blade was written, in some ancient sacred language, the words "Take me," while on the reverse side was written, in the vernacular, "Cast me away". This seems to mean that at first the Hero has his vision and understanding clear, as to his Divine Mission, for which he takes his sword in hand. Later, bewildered by the clouds of earth, he will have forgotten the sacred tongue, and must be told, in the common speech of the earth, to renounce his weapons before returning whence he came.

One of the first exploits to which the young King was called was to bring deliverance to King Leodogran, whose realm was infested with bandits. Riding among his Knights, he saw fair Guinevere, the King's daughter, standing by the castle walls, and knew her for his destined bride. Joyfully her father consented, and they were wed, but Guinevere's love was but lightly given, and soon turned to Lancelot, Arthur's chief knight and companion-in-arms. Thus were sown seeds of evil that would eventually undo the Round Table and lead to Arthur's death.

But at first there seemed no shadow of such mischance. Rejoicing in the strength of their vows, Arthur's Knights were one with himself in prowess, and law and order was restored throughout the realm, the rebel barons having been defeated in twelve great battles.

So the land had rest, and Arthur daily sat in his great Hall at Camelot, the wondrous city of Merlin's art, to administer justice and redress all wrongs. The joyous tale of Gareth and Lynette as told in Tennyson's golden verse, gives us the picture of those early days of Arthur's rule, as the ever-saddening note of the subsequent Idylls shows the insidious working of the poison of Guinevere's faithlessness. One after another,

most of Arthur's Knights slacken in their self-discipline, and allow the usual earthly passions to draw them from their allegiance and their pledged honor. It was easy, in a moment of high enthusiasm, to flash into "a momentary likeness of their King," but hard to continue the effort to live like him, a life consecrated to Service.

The traitor who finally led the revolt against Arthur was of his own immediate circle, and even of his kin, Modred, his sister's son. He, by spreading court scandals, undermined respect for the King, until Lancelot, fearing the King's anger, fled from his side, to seek supporters among his own kin in Brittany, the Queen sought refuge in a nunnery, and disaffected Knights rose in rebellion against him whose standard of life was too high for them, who wanted them to rise from the brute into manhood. "So all day long the noise of battle roll'd among the mountains by the winter sea; until King Arthur's Table, man by man, had fallen in Lyonesse about their Lord." Thus sings the poet, over this sad ending to a tale that began with gladness. But so it must be, while human nature is so imperfect. Where aims are so high, there must be partial failure, and only Those who send the hero forth can measure his true success in the work given him to do. So, sick at heart at the perfidy of wife and friends, the King fought his last battle in the west, and, though victorious, was mortally wounded. Attended by the faithful Bedivere, he bade this staunch Knight to take Excalibur, and cast it into the Lake, where a mystic hand rose to receive it. Then leaning on his stalwart follower, Arthur made his way to the shore, where awaited him "a dusky barge, dark as a funeral scarf from stem to stem," which was to bear him to the Isle Avilion. So he disappeared, into the mysterious sea whence he had come, leaving a new ideal in the hearts of men, which was to flower forth into Chivalry, and redeem mediæval Europe. "The old order changeth, yielding place to new," and it seems as if Chivalry must now definitely be relegated to the past. But its best points can be carried on into the ideal of the new age on which we are entering, and some day, a poet will write for us an epic on Brotherhood.

H. V.

Buddhist Stories

BY MRS. M. MUSAEUS-HIGGINS

Sariputra and Maggalana

AMONG the disciples of the Lord Buddha the two most prominent ones were Sariputra and Maggalana. Sariputra became renowned for his learning (Pragñā) and Maggalana for his exceptional spiritual powers (Iddhis).

Life Story from Sinhalese Literature. Long, long ago, there lived, in a Brahmana village near Rajagriha, in Jambudipa, two families who were very friendly towards each other. The names of the wives of these Brahmanas were Rupasari and Mogalli, and they had two promising sons named Upatissa and Kolitaya. Their fathers were the Chiefs of the villages, and for generations the two families had been friends. So it was very natural that the two sons should become much attached to each other. They were always together, they studied their lessons together and even took their meals together. On the playground they never parted and never quarrelled. They studied all that was expected of them according to their caste and customs of the time.

Like their fathers who were the leaders of the village, these two boys, Upatissa and Kolitaya, were the leaders of the village boys; and like their mothers, they were pious and anxious to learn all about religion. When they were about fifteen years old they went to Rajagriha with their followers to see a religious play. While they were attentively listening to the play, there came to their minds that their lives could be likened to a play on the world's playground. They were able to understand that there would be no comfort or rest on earth till they found the Path to Nirvāna. They were so much impressed with this idea that they made up their minds not to rest until they found this Path.

So these two youths agreed that they would go in search of a Guru (Teacher) who could show them the Path to Nirvana. They wandered away from home together, blessed by their pious mothers. Arrived at Rajagriha, they saw an ascetic, Sanjaya, who seemed to them the

right one to consult about their search. They became his followers, but very soon they found out that he could not teach them the way to Nirvāna. So the two youths resolved to separate and to go in opposite directions, and they promised each other that whoever would find the right teacher would communicate with the other. Upatissa, who now called himself Sariputra, wandered about, and near Rajagriha, he found an ascetic named Assaji. His face was shining with the light of happiness. His movements were composed and stately; with bowed head and down-cast eyes, he stood before the lowly houses with his begging bowl for food. When a woman came out of the house with a child in her arms, he blessed them with shining eyes and then wandered on. Sariputra followed him, but he said to himself: "I cannot dare to approach this Saint to ask him questions now, but I will wait till he has finished his rounds." So, when Assaji had left the village and had sat down near a stream, and, after his ablutions, had finished his meal, Sariputra stepped humbly forward, cleansed the ascetic's alms bowl, and asked if he would answer some questions. The ascetic nodded his assent, and Sariputra asked: "Who is thy teacher, O saintly one? Who has taught you thy saintly ways? Dost thou know the way to Nirvāna?" The ascetic looked astonished at the young questioner and answered: "I have found the Great Teacher, but I am yet a Sanavena and I do not know the whole Law, but I have entered the Path to Nirvāna." "Tell me the substance of the teaching, O venerable monk," said Sariputra. Then Assaji rose and solemnly recited this stanza:

The Buddha hid the cause unfold
Of all the things that spring from causes,
And further the Great Sage has told
How finally all passion pauses.

Having heard these words Sariputra understood the meaning and asked: "Where can I find the Great One who taught this?" Assaji explained to Sariputra where the Lord Buddha was to be found, and Sariputra resolved to find

Maggalana to tell him what he had learned. As soon as Sariputra found Maggalana (Kolitaya) they went together to the Lord Buddha. The Lord Buddha was surrounded by His disciples and a crowd of listeners, and at once He perceived the two youths whom He called by their names and asked to approach, and as they did so looked at each other; they saw that they were clothed in the yellow robes of Upasampadas without having been taught the Law from the beginning. Their inner eyes were opened and they could teach from that moment to others what they knew without learning it themselves. So the Lord Buddha said: "Sariputra, like the first-born son of a world-ruling monarch, is well able to assist the King as his chief follower to set the Wheel of the Law rolling."

Both of these two disciples, Sariputra and Maggalana, were very much in the company of the Lord Buddha, and were considered His right and left hands. Both had their own disciples, and these disciples, too, tried to walk in the path of Righteousness.

Some of the Lord's disciples were not following His teachings as strictly as the others, and six of them had their own disciples and were not always together with the Lord. When Anāthapindika, the father of the orphans, had finished the monastery which he built for the use of the Lord Buddha and His disciples, he requested Him to occupy it with His disciples. The Lord started on His way, but did some teaching on the way and arrived a little later. In the meanwhile, the six disciples mentioned before had hurried on and occupied all the places in the monastery with their followers, and had left only the place specially meant for the Lord unoccupied.

Sariputra and his disciples arrived together with the Lord, and he searched in vain for a place to rest in for the night, but none of the younger disciples offered him a resting-place.

So Sariputra went into the garden and sat down under a tree, spending the night partly meditating and partly walking. At dawn, the Lord Buddha, coming into the garden saw somebody under a tree. "Who is there?" He asked. "It is I, Sariputra," the answer came. "How is it that you are spending the night outside?" "There was no room in the monastery

for me," the answer came gently. "How is that possible? Sariputra, call the disciples together; no sooner the sun has risen, than I will speak to them" said the Lord, thinking to Himself: "What will become of My teachings, when already, now, the younger disciples have no respect for their elders. I must give them a lesson."

All the disciples were gathered together at sunrise, when the Lord entered the hall and sat down on the seat prepared for Him. Is it true that the thera Sariputra could not find a resting-place last night in this large building? asked He. "Yes, that is true," answered they. "Who is entitled to the best resting-place, to the best rice, the best water, among the disciples?" queried the Lord. Some answered: "The one who had been accustomed to all comforts," "He, who had been a Brahmana before he became a disciple," answered others. "He who is kind and devoted," said some. The Lord was not satisfied with these answers. He lifted His glorious eyes and looked around the assembly and said: "The religion that I teach says that the one who is the older in service deserves the best resting-place, the best rice, the best water, and the best attention. You, before me, are young in service, and have forgotten that the thera Sariputra is the senior of you in every respect. Should he be left out of the monastery, and you, the younger ones, take the best places?" All the young disciples felt ashamed and hung their heads. "Do you know that in the olden times even the animals paid respect to their seniors?" "May the Lord explain this to us?" said the disciples. "I will," answered the Lord.

"There lived once in a large forest three friends—an elephant, a monkey and a partridge. But sometimes it occurred that they differed in opinion and they did not know who should be their adviser. So they agreed that they would find out who was the eldest of them to advise. The partridge asked the elephant: "When you were very young, how big was the banyan tree under which we are?" "When I was very young, this banyan tree was a little bush, so that I could reach the top with my trunk," said the elephant. The monkey said: "When I was very young I could just sit under the

small bush and pluck off the top, reaching out my arm, so you see I am older than the elephant." The partridge looked at both of them and said: "When I was young and could just fly, the place where this banyan tree stands was empty. I ate some seeds from another banyan tree and dropped some of them here on this place. From these seeds this banyan tree has grown. So, you see, I am the oldest of the three of us."

So these friends agreed that the partridge was the oldest and in consequence the wisest. From this time the partridge instructed his two friends, taught them the five shilas and kept

them himself. The elephant is now Maggalana, the monkey is Sariputra, and the partridge was Myself, the Bodhisatta.

This teaches you, if animals can acknowledge seniority, what human beings should do."

From this time, the disciples paid respect to their seniors; and the Lord saw they had taken His teachings to heart.

Before the Lord Buddha left the hall, He recited the following stanza.

"For they who honor age, in Truth are versed;

Praise now, and bliss hereafter is their meed."

Secrets of the Atom

Sir W. Bragg's Work

BY THE SCIENTIFIC CORRESPONDENT

I have just spent a morning with Sir William Bragg, who, in his physical laboratory at University College, London, is studying one of the big scientific problems of the day, the secret of Nature's methods of building up with her tiny bricks—the atoms—the substances on which the life of the nations of the future will depend.

Under Sir William Bragg's guidance, work of the most far-reaching importance is going on, work which may help to probe the secret of the synthetic chemistry of to-morrow and will lead to enormous progress in many industries.

Sir William has used the X-rays as his means of laying bare the innermost structure of a substance, and from the results he has obtained he has been able to build up remarkable models showing the positions of the atoms in the crystal structure of which most things are built up.

Even leather and celluloses, said Sir William, have proved to be crystalline in structure. Sometimes in a manufacturing process the crystals break down, when their disappearance is revealed by the X-rays. In this way, analysis of industrial processes, such as the manufacture of glass or porcelain, has been followed out in a few hours where months of patient experiment might formerly have revealed nothing.

Models of Atoms

Sir William Bragg builds up large models of the

atoms in a crystal like a miniature building of reinforced concrete. First a number of vertical wires are set in a wooden base, spaced apart according to the positions revealed by the rays. Then, using little balls of modelling clay of different size and color representing the atoms, he builds up the model.

A special type of X-rays tube has been invented for this work. One of these was in operation when I saw Sir William, its extraordinarily high vacuum being maintained during the exposure of the photographic plate by means of an air pump. For three hours the process of bombarding the crystals with X-rays had to be continued; the plate would then be taken from its dark chamber and developed, when a few parallel lines would appear in the photograph. The spacing of these lines shows just how the atoms are spaced out, lying on different planes in the crystals, and from these measurements the atomic structure would be duplicated on a scale many thousands of millions of times greater.

The applications of this wonderful science, Sir William explained, are as yet hardly begun. But complicated chemical processes and phenomena have been explained through experiments made at the College, that have had a direct and valuable bearing on industrial work.

A Great Indian

Rai Bahadur Purnendu Narain Sinha
BY PROF. J. N. SAMADDAR, PATNA

IN every *Namakarana* ceremony, parents in an Indian family try to find out a name for their child not only to suit it but also to prognosticate its brilliant future. Very seldom, however, are such pious wishes fulfilled, but in one case, at least, to the very last iota, all that could be desired was consummated. That was what actually happened in the case of the late Rai Bahadur Purnendu Narain Sinha. His parents named him Purnendu—Full Moon—while all over Bihar he was known as Purna (Full) Babu. In appearance, in manner, in dealings, in culture, this Full Moon was really Full—the cup of good qualities was full to the brim.

Born on the 27th of September, 1858, in a well-known Kayastha family of Kandi in the District of Murshidabad in Bengal, Purnendu Babu showed signs of greatness, and developed even in his boyhood a strong leaning towards religious ideas. After passing the Matriculation Examination, then known as the Entrance, he went to join the college classes at Calcutta, and there commenced attending almost regularly not only the religious meetings at the Bramha Samaj, but he was a frequent visitor of the churches also. Later on, he began to study the Sāṅkhya System of Philosophy and to ponder over the writings of European Agnostics. Then he turned to Theosophy, and to the day of his death he was its ardent devotee. Very often, whenever any one in doubt would approach him, he would say: "In my father's house there are many mansions," and that showed his deep-rooted conviction.

After graduating at Calcutta, Purnendu Babu came to Patna, where he married a daughter of the late Rai Bahadur Krishna Chandra Ghosh. He obtained his M. A. degree from the Patna College in 1881, and joined the local bar next year. By his supreme intelligence, honesty of purpose and full fair dealings with his clients, he gradually rose practically to the head of the profession, and down to his death—which lamentable event happened at 4-30 p. m., on October 1st, 1923—he enjoyed not only a very lucrative practice, but, what was more, the entire confidence of his numerous clients and the esteem of the Bench.

The year of his passing the Law Examination brought him in contact with *The Bihar Herald* of which he became the Assistant Editor. Then the Editor was the late Babu Guruprasad Sen, one of

the pioneers of the Bengalis, who, like Purnendu Babu, have done so much for the uplift of Bihar and Biharis. Purnendu Babu was soon after requested to take over the charge of *The Indian Chronicle*, which was then becoming the organ of the Young Bihar Party, and thanks to him, *The Indian Chronicle* and *The Bihar Herald* were amalgamated. He was associated with this to the last days of his varied life, and as Sir Hugh McPherson, the Acting Governor of Bihar and Orissa so aptly observed the other day, in unveiling Purnendu Babu's portrait, in connexion with his association with it: "I trust that *The Bihar Herald* will always retain that blend of literary merit, independent judgment and dignified restraint which, I have no doubt, it owes greatly to the wholesome influence which he exercised over it during these long years of his association."

Not only in the field of journalism in Bihar but in the matter of awakening political spirit in the Province also, Purnendu Babu was one of the pioneers, if not the pioneer. There was then only one political Association, viz., The Bihar Landholders' Association, which represented the aristocracy of the Province. He started the People's Association. This later on developed into the Bihar Provincial Association. Purnendu Babu then started the Ratepayers' Association with the object of improving the condition of the Patna Municipality. His labors are even now bearing fruit. After the separation of Bihar from Bengal, Purnendu Babu organised the Bengli Settlers' Association of which, till his lamentable premature death, he was the President.

At about this time, Mr. Hume came to Patna, and Purnendu Babu, with his friends, became a follower of the Congress. As the Hon. Sir Hugh McPherson said: "We often crossed swords across the Council floor, for as an eminent member of the Congress and one of the first founders of the local branch of that body, the late Rai Bahadur held strong progressive views on many subjects; he wanted to go faster than the Government did; but he was always a gallant opponent and clean fighter, who never hit below the belt. He never allowed the heat of controversy to cloud his political vision, nor any desire for personal triumph to dull his yearning for public good. These words, coming from the head of the Government of the Province for which he shed his life-blood, truly represent the real state of affairs.

But the late Rai Bahadur's activities were not confined to politics only. He was an educationist also. He was the founder of the local Anglo-Sanskrit School which, together with its palatial building, he made over to the Theosophical Society. It was his aim and ambition to raise this School to a college, and if the cruel Reaper had not cut him short, his wishes would have been crowned with success. It was his effort that converted the ordinary Survey School here into the Engineering School, and he would have felt infinite pleasure, now that the School has been converted into a college. He was one of the founders of the Bihar Young Men's Institute, which is now thriving, and when this institution seemed to decay, he, in his zeal, only a few years back, carried on its work as its Honorary Secretary. Purnendu Babu presided with great credit at the Conference which objected to some of the principles regarding the establishment of the University at Patna, and though there were some who could not see eye to eye with him, it is an open secret that his presidency over the deliberations of this had much to do with the abandonment of some objectionable principles.

Purnendu Babu's services to the Province of his adoption, from the point of view of various economic problems, were no less considerable. The Bihar Agricultural Association and the Co-operative Federation owe their existence to his inspiration and exertion. The Industrial and Agricultural Exhibitions held at Patna were due to him and him only. The Bank of Bihar, which is still going strong, and the Kirtyananda Iron and Steel Works, alas, now in liquidation after his death, were mainly the outcome of his endeavors.

He was also a social reformer. His work in

connection with the so-called depressed classes, his attempt to purge the Kahar and the Kurmi communities of their evil practices, and, last but not least, his taking the sacred thread, all show his earnest zeal for social reform.

As a writer, Purnendu Babu's position was also high. His study of *Srimat Bhāgavat* is a monument of erudition. His two books on Vaishnava literature, *Paurāṇik Kathā* and *Chaitanya Kathā*, are household books in Bengal, and are sources of inspiration to every Vaishnava. *Religious Thought in the East*, *God Through Nature*, *Theosophy in the Light of Hinduism*, all afford ample material for reflection. As an effect of his writings, he was elected as the President of the Philosophy Section of the All-Bengal Literary Conference, while the success of the Tenth All-Bengali Literary Conference at Patna, with the late Sir Ashutosh Mookerji as its President, was due to him and him only.

It will be thus seen that his work was not confined to any particular sphere. He was everywhere. In the local Council, in the Committees, in educational, political, social and economic matters, he was everywhere. Without him nothing was complete. As *The Searchlight* observed: "Purnendu Babu was almost an institution in Patna," and "great though he was as a publicist, profound as he was as a scholar, Purna Babu the man was infinitely superior". To the Young Citizen the example of his life should always remain an inspiring memory in his future career, for he was one of the few, about whom the poet said:

Lives of great men all remind us
We can make our lives sublime:
And, departing, leave behind us,
Footprints on the sands of Time.

A Smart Horse

One morning recently, when there was a lot of snow and ice in Michigan Avenue and many other streets of our city, I happened to be riding in a Michigan-Forest street car, and near Clinton Street, a delivery wagon belonging to Witkop and and Homes was left partly on the tracks, while the driver dashed into a nearby store. The motorman of the trolley car was forced to stop and he began sounding his gong. Immediately the wagon moved forward and off the street car tracks and completely out of the way of the waiting street car. When the car passed the wagon, I saw that the horse

attached to the wagon had moved forward on his own initiative, as the driver was absent. It was the most intelligent act I ever beheld a horse (outside of a circus) perform, and I want to take off my hat to that fine, smart horse. It was a sort of white, or grey, horse, and I suppose the intelligent animal had oft before heard the clang of similar gongs and realised that he was expected to move forward and do a little side-stepping. The firm mentioned may well be proud of such a horse.

J. B. in *The Times*, New York

Animals Take to Human Inventions

BY ROBERT SPARKS WALKER

(The Dearborn Independent)

LESSER animals soon become accustomed to new devices employed by mankind, and some of them seem to take to them as naturally as if each were a natural creation and designed for their especial benefit. One would think that a roaring, puffing, flying, rocking passenger train would be sufficient to drive every wild creature within its path to seek safety at a great distance, yet the familiarity of even the unworthy mosquito has given commercial advantage to newsboys in certain parts of the South, who have seized the opportunity of spraying railway passengers at ten cents a head, as a preventive of bites from the mosquito!

On Decoration Day, 1923, while returning from a ten-mile trip in the country as a front seat passenger in an automobile, I observed a number of house flies loitering about the hood of the engine. It had been a sultry day and the atmosphere was humid. When our auto started, all except five of the house flies flew away. The five that decided to remain with us perched themselves upon the hood. I knew how fast my niece, who was to pilot the car, was going to drive, at least a part of the way, for there was a dark cloud rising in the west, and we were plunging directly towards it. I thought, surely the friction of the swift breezes would cause them to give up their grand stand seats, but while travelling at a lively clip the flies seemed to enjoy being hurled through the air. Apparently, at times, they were interested in objects that were passed on the roadside. The speed was accelerated to 25 miles an hour to test the flies pluck, but they paid no heed to the pressure of the air, and one fly raised his forefeet as if he were really enjoying the ride. I do not know, but that he was waving a hand at John Bluebottle, or some other friend whom he had recognised along the way. Apparently, the flies experienced no difficulty in remaining on the car, and at least two of them walked leisurely over the surface testing various accumulations on the hood with their tongues to ascertain if they were fit for food. After we had travelled three miles, all of the flies were still with us and enjoying the ride. Three miles farther on, the flies moved about, and one daring fellow walked over to the edge of the hood where friction seemed to be greatest. When we ran headlong into a heavy downpour of rain, the five flies left us as calmly as

they had been able to ride on the swiftly moving engine.

One June evening, I left Chattanooga near midnight for Memphis. Thirty minutes after the train had started on its journey, a beautiful katydid lit on the pane of my window. I think the train was moving at from forty to fifty miles an hour. At any rate, the bright light that shone through the window, and the speed of the car occasioned it no inconvenience, for it remained on its glassy seat with ease for thirty minutes or longer, during which time it utilised the saliva and with its forefeet took a midnight ablution. Surely a bath taken on a swiftly moving train and in a bright light was something unusual for this katydid and its ancestors, but to the observer it went about its business in a manner that made it appear it had long been practising it.

Two years ago, a friend shipped me two crates of peaches by freight from a point fifty miles away. The fruit had set over on the ground in the peach orchard the night before it was shipped. At my railroad station it was kept overnight and delivered to me in the morning. When the lid was removed from the first crate, in the top centre of one of the cups was coiled a king snake that measured more than two feet long. The snake had evidently chosen its fragrant seat sometime during the night, while the crate of peaches was on the ground before it left the orchard. There was nothing to hinder it from crawling out at any time, and the opening was large enough to admit daylight, yet on the jolty and noisy trip it chose to remain in the peach-crate until driven out by the consumer.

Nature does not keep her creatures in a rut. Man often gets himself into a rut, but it is because he has in some manner thwarted nature in her course. Nature decrees a certain work for every creature. If its brief life brings it face to face with the artificial creations, or into the presence of the products of man's ingenuity, it adapts itself to the new condition and moves on. See how soon dogs learn to ride in the automobiles!

I have often observed a raccoon turned loose in my kitchen. He soon hastens to the sink. In the wild state, the raccoon is foolishly fond of water. He is never so happy and so full of fun as when given his freedom in a kitchen sink with both faucets open. He reaches up for the soap, gets two

small bars, one for each forepaw, and he amuses himself for hours by floating the soap in the water and fishing for it with his nimble paws. It is easy to imagine that the noise of the flowing water sounds much like water trickling over a stone in the mountain stream. He frequently turns his head to one side, and, like a boy with an open mouth, delights in letting the stream pour through it! When the water is turned off, he stands up and makes a futile attempt to turn the water on again, for he was not long learning the secret of its source.

Birds are learning to trust humanity. I know of nothing that gives brighter hopes for World Peace than this. See how they are coming to the cities, and how confidently they are nestling up to man! The robins are building their nests in cities direct'y over paths and sidewalks, to get the advantage of human protection.

Birds that kill their prey seem to know instinctively that the average human being will not stand quietly by and see it take the life of another creature. A few weeks ago, in a residential part of a city, I was walking along the street when I observed a sparrow hawk approaching, and when it was within fifty feet of me, it made a dive for an English sparrow that it seemed to have on the run. The sparrow dodged the hawk's set claws. When the hawk espied my presence, it quickened its speed, but the frightened sparrow darted into a pile of dead leaves on the opposite side of the street, chattering and screaming some sort of rignarole, known only to avian linguists. When I ventured across the street to visit the frightened bird, it refused to trust me, and flew away and joined the

other members of its clan.

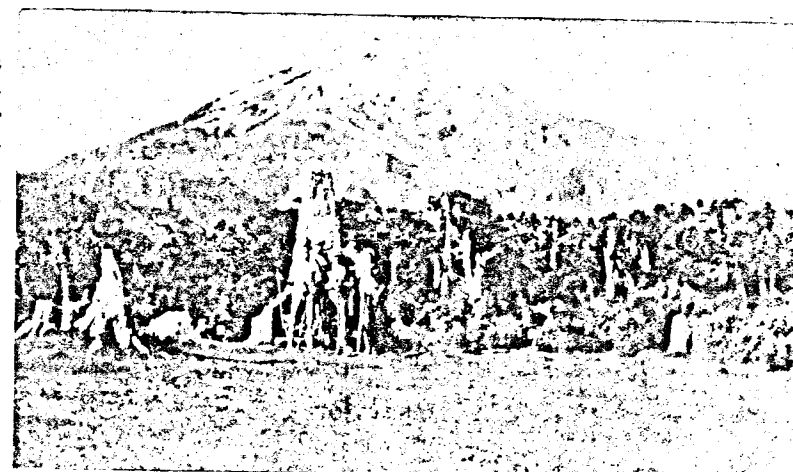
The favorite hunting ground for bullbats or night-hawks is the great airy deep that lies over our larger cities. When man began to finish his buildings with flat tops and then cover them with gravel, the bullbat said; "What's the use of going out on the hillside or in the fields to raise our young?" They simply take advantage of the natural appearance of the flat roof and raise their young. Probably their children are safer on the flat-topped buildings than they would be on the ground. The butcher bird has long been employing the sharp thorns on trees for impaling its food, composed of mice, grasshoppers, and sometimes young birds. When man began to stretch barbed wire fences around field and farm, the butcher bird seized the opportunity to employ the sharp barbs instead of thorns for impaling its food. The smooth intervening spaces between the sharp barbs furnished the butcher bird a comfortable place to sit while it dines.

A farmer living in North Georgia had running water installed in his barnlot. The drinking trough was in reach of horses, mules and cows. One mule learned how to turn on the water, but, after quenching his thirst, seemed never to think about shutting it off. This careless practice soon made him a perfect nuisance, and his owner found it necessary to trade him to a neighboring farmer who obtained his water supply from a natural stream.

You do not have to go very far to witness interesting animal behavior, as I have briefly related in this article, for such observations are within easy reach of everybody.

A Hero

This picture was taken by the nephews of one of our New Zealand correspondents, when climbing Mt. Egmont during Christmas week, 1924. The monument was erected in memory of Mr. Amery, a married man, resident, we understand, in New Plymouth, Taranaki, N.Z. A young fellow, not long out from



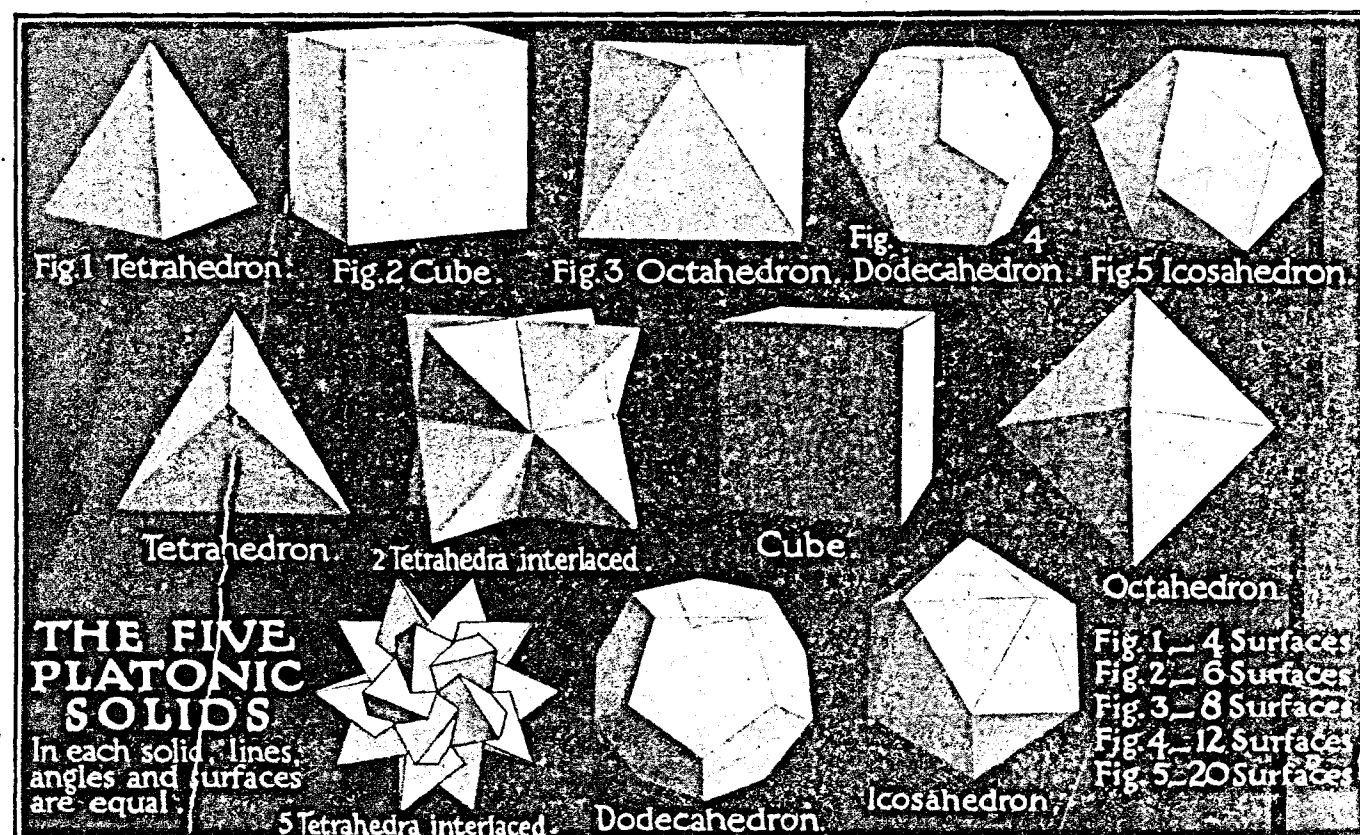
the Mother Land, climbing the mountain with some friends, lost his head, and was sliding towards a 300 ft. drop when Mr. Amery saw him, and though he was much lower down the mountain-side, climbed across the ice and tried to catch him. The impetus of the slider was too great: both fell over the cliff and were instantaneously killed.

Platonic Solids

BY C. JINARAJADASA, M.A. (CANTAB.)

THESE are five, and only five, three-dimensional solids, in each of which its lines, angles and surfaces are equal. They are the Tetrahedron, Cube (Hexahedron), Octohedron, Dodecahedron and Icosahedron. In the first row are illustrations of them, as the five solids appear when they lie on a flat surface. In this position, their symmetry is not readily evident; hence they are placed in a different position, in order to bring out their symmetry, and their appearance then is given in the illustrations of the second and third rows. These five "Platonic Solids" were

8 corners of the cube, while the 6 intersecting points give the 6 points of the corners of the octohedron. This fact has long been well known in geometry. But the further fact, that the two remaining Platonic Solids, the dodecahedron and the icosahedron, are also developable from the tetrahedron, was discovered by Señor Arturo Soria y Mata, of Spain. By interlacing 5 tetrahedra, we have the complicated solid shown in the first figure of the third row; the 20 corners of the 5 interlacing tetrahedra make the 20 corners of the dodecahedron, while the 12 intersecting points



considered of especial significance by the Platonic Schools of Greece and Alexandria; the reason for this will be evident soon. Now, these five solids, distinctive though each is in the number of its lines, angles and surfaces, are all developable from one solid, the tetrahedron. Thus, the cube and the octohedron are developed out of two tetrahedra when symmetrically interlaced (see the second figure of the second row); the 8 corners of the 2 interlacing tetrahedra give the

12 points of the corners of the icosahedron. There are, in each of the five solids, surfaces and corners; these give the directions for the building of the chemical elements. Taking the first three solids—the tetrahedron, cube and octohedron, we have:

SOLID	SURFACES	CORNERS
Tetrahedron	4	4
Cube	6	8
Octohedron	8	6

We find that these three solids are the tamâtras—"the measure of THAT"—or axes for the building of the Divalent, Trivalent and Tetravalent elements of the Periodic Law. Thus all divalent elements, both positive and negative, paramagnetic and diamagnetic (with the single exception of Oxygen), are of the general type of Glucinum. Physical atoms, of the positive and negative types, are massed together in groups, but especially in four main groups or "funnels" which radiate from the centre of the tetrahedron to its four surfaces. This is the simple divalent structure for the lighter elements; in the heavier elements there appear, in addition to the "funnels," new groups termed spikes," four in number, and radiating from the centre to the four corners. (Each element is surrounded by a spherical limiting wall, composed of the circumambient atomic matter.

All trivalent elements, with the exception of Nitrogen, are of another type, the lighter trivalents are composed of six "funnels" radiating from the centre of a cube to its six surfaces; the heavier

trivalents have, in addition to the six funnels, eight "spikes" radiating to the eight corners of the cube.

All tetravalent elements, with the exception of Titanium and Zirconium, are of a special type; the lighter tetravalents are composed of eight "funnels," starting from the centre of an octohedron and pointing to its eight surfaces; the heavier tetravalents have, in addition, six "spikes" pointing to the six corners.

There remain the dodecahedron and the icosahedron; the former is the tamâtra, not for any one type of elements, but for a constituent of some of the elements. This constituent is composed of groups of atoms which are placed at the twenty corners of a dodecahedron. Except that the icosahedron is implied in a dodecahedron—the corners of an icosahedron are the twelve points where the five tetrahedra regularly intersect—no definite groups of bodies in the building of the elements have so far been noted, as placed in the twelve corners of an icosahedron.

Iodine and Life

Goitre

A very interesting article on the above subject appeared lately in *The Manchester Guardian* from the able pen of Dr. C. W. Saleeby, dealing with the very important rôle that iodine plays to-day in preventive medicine. Iodine is present in seawater and, as has been pointed out, there is an extraordinary similarity between the saline needs of our bodies and the salts dissolved in seawater—extraordinary or marvellous, until it is recognised that Life originated in seawater, and only later took to dry land—a story that is epitomised in the life history of the frog, as it develops out of the tadpole, so that life for success in its great adventure ashore constantly requires a supply, through its food, of those salts in the solution of which it originated.

Iodine and the Thyroid Gland

Of these salts, so necessary to life, it would appear that iodine is one of the least accessible on dry land, and therefore the one whose supply requires the most attention. Outside of faint traces of it throughout our bodies, it appears to occur only in one organ, but that a most important one. The research of late years into the causes of debility and stunted growth focussed the attention of physicians on the immense importance of the functioning of one organ, the thyroid gland, so important that when the thyroid fails everything fails. Without proper function here health is impossible, and an infant born with defective thyroid may be dwarfed, or idiotic, and the case be hopeless, unless thyroid substance be obtained from some other source, and this substance which this unique and potent gland in our neck secretes is very largely composed of iodine.

This gland tends to become enlarged under certain diseased conditions, and men have noticed this ugly enlargement of the neck that we call goitre to-day, for thousands of years. How they knew that which we are only rediscovering to-day we know not, but the Greeks apparently knew the secret and treated the complaint with the ashes of a marine animal which we know contains iodine. Again a century ago goitre was treated with iodine, which however, for reasons unknown, was dropped, and the surgeon with his knife has had a long and deplorable innings which is only now ending.

The New Treatment

In 1917, Dr. David Marine of Ohio showed that if iodine be restored in minute quantities to the dietary of school children, many goitres vanish and new cases cease to appear. This work has been extended and taken up all over the world, and Sir David Bruce in his Presidential Address to the British Association at Toronto last year named this discovery as the latest outstanding triumph of preventive medicine. The prevalence of the complaint with its great danger of cancer, only became apparent when fashion decreed bare necks for women. In certain parts of England, it has long been known as "Derbyshire Neck," but everywhere, all over the world, this iodine treatment is meeting with success. The recognition of this treatment can be estimated by the fact that in some American cities iodine is being added to the water supply, while Michigan, Switzerland, Ontario and New Zealand add it to the common table and cooking salt.

Do You Know "the Little Peoples"?

Edison Says They Are Minute Intelligencies That Act as Memories

BY ALLAN L. BENSON

(The Dearborn Independent)

"HOW do we remember?" I asked Edison. "Well, now let us see," he began. "In the first place, we do not remember. A certain group of our little people do this for us. They live in that part of our brain which has become known as the 'fold of Broca'. Broca discovered and proved that everything we call memory goes on in a little strip not much more than a quarter of an inch long. That is where the little people live who keep our records for us."

The older Edison becomes the greater seems to be his interest in what he calls the "world of the little peoples". The "little peoples" in your body, for instance, are the minute intelligencies that constitute the cells of which your body is composed. In your body, there are billions of such intelligencies, each an expert in its own field, but knowing nothing about anything else. Some of the little peoples that compose your stomach-cells, for instance, can perform miracles of chemistry that no chemist can perform, but you would drop dead if they were to jump into your heart and try to function as a pump. A few million intelligencies have nothing to do from the time you are born until you die but to act as your memory. Such, at any rate, is Edison's theory of what you are and how you work.

Seeing with the Eyes of Childhood

"Some of the little peoples who enable us to remember things," he continued, "do nothing else during our entire lives but watch moving picture shows. Everything that comes in through the eyes comes in the form of moving pictures. These pictures come so rapidly that, like the pictures on a screen, they seem to be but one picture, but in fact they are millions. The optic nerves bring the pictures through the small holes in the front of our skulls into our brains where the little peoples whose function it is to remember can see them. We do not remember everything we see because everything is not worth remembering. Little Peoples, like 'big peoples,' are of various degrees of intelligence. Some will choose to remember what others will choose to forget. But whatever their intelligence, they all seem to be impressed by the startling and the unusual. The thing is remembered that makes an impression. When a human being is young and his little memory-people have

empty record cases, many things make an impression. That is why so many childhood memories linger throughout our lives."

Edison then told a story to illustrate the tenacity of childish memory.

"A man was here the other day," said Edison, "who had recently visited the old country school-house where he was a pupil, when he was five years old. He told me that as he approached the place everything seemed much as he had left it almost half a century before: the hill down which he used to coast had somewhat flattened out; it was not the little Matterhorn, the memory of which he had carried with him so many years, but a very gentle slope. As he drew nearer the little building his mind was flooded with memories; this thing, that thing, and the other thing—there they were just as he had left them. But when he approached one of the side windows and looked into the room where he learned the alphabet, he got a great shock. Something was wrong with the windows! They were too low. As he looked through the little panes of glass he became distinctly uncomfortable. What was the matter? Then the answer came to him. The last time he had looked through that window he was so short that he had to grab hold of the sill to pull himself up. He had grown so tall that his eyes were perhaps three feet above the sill."

What a Good Memory Really Means

"Now see what had happened. For more than forty years some of the little people in this man's brain had carried about with them a certain recollection about those window sills. The recollection was that the sills were so high one could not look through the windows without pulling himself up. Waking or sleeping, wherever he went during those forty odd years, that recollection was with the man, though he did not know it. • During this time, the substance of his body, including his brain, had changed several times, but the little peoples that live in the cells had not changed. The moment the little peoples in that man's optic nerves began to see moving pictures of those old window sills and sent the message back to the brain, some of the little people in the fold of Broca began to stir. They had heard about those window sills before. They were so high that nobody could look through them without pulling himself up!"

Edison does not believe that all of the memory little peoples remember the same things.

"There may be twelve or fifteen shifts," said he, "that change about and are on duty at different times, like men in a factory. I infer this from the fact that we sometimes have to send for the particular ones that have the records we want. That is what we do, I think, when we cudgel our memories for the things we want to recall. We have forgotten a man's name, for instance. We ask the shift of little peoples who happen to be on duty: 'What is that man's name?' They were not on duty when the name was given to them to remember and they don't know. After a while, suggestion or something else summons the shift that has the name and they give it. I therefore take it that the possession of what is called a good memory really means the possession of the ability to summon the particular groups of little peoples who have the records we want. Haven't you noticed that when you get in touch with the right group the thing you want to recall comes crashing into your consciousness with no evidence whatever of impaired vitality? The little peoples, who have remembered perfectly, seem almost to shout at you the information you want. Therefore it seems likely that remembering a thing is all a matter of getting into touch with the shift that was on duty when the recording was done."

Believes Little Peoples Are Immortal

What a host of little peoples record and hold the things we wish to keep on file in our minds! Edison himself seemed almost awe-stricken at the contemplation of the probable number.

"Why, there are 125 million little strands," he said, "in the thing we call the optic nerve. Each of these strands is a mass of cells and each cell is a mass of little peoples. There must be billions of them!"

Edison believes these little intelligencies—these little peoples—are immortal; that they go from one body to another and never die. He says it "does not stand to reason" that the individual is immortal, because the individual is but a collection of minor intelligencies, all of whom may never again be quartered within a single body.

I asked him why these little intelligencies thought it worth while to spend an eternity in a succession of human bodies?

"Just to get experience," he replied. "They seem to crave experience. As I see it, something like this happens: Millions or billions of little peoples, perhaps, come together in a certain individual. Some want to do one thing and some another.

Some have high ideals and some have not. For a while they fight out their differences and then the stronger group takes charge and this group dominates the man's life. If the minority is willing to be disciplined and to conform there is harmony or, at any rate, something that approximates it. But oftentimes the minority is not willing to conform. It is outraged at what it conceives to be the indignities that the majority heaps upon it. Minorities then sometimes say: "To hell with this place; let's get out of it." They refuse to do their appointed work in the man's body, he sickens and dies, and the minority gets out, as does too, of course, the majority. They are all set free to seek new experience somewhere else."

Edison, like Lincoln, Washington, and some others, sometimes says "hell," when he wants to get a lot off his mind in an instant.

I asked him if, in his opinion, memory-cells carried recollections from one human life to another. The first sentence of his answer showed that however much he may doubt that immortality is in store for the individual, he would be glad if he could believe it.

"I should like to think so," he said after a pause. "I should like to think that the recollections of experiences in one human life are carried forward through an endless succession of other lives. If the same little peoples were forever grouped together we should then have immortality and, what is perhaps more important, we should be able to begin each new experience with all the wisdom that we had gained during the ones that preceded it. This, however, is not what happens. Each generation is not able to profit from the mistakes of its ancestors. Each generation commits most of the same follies that have been committed since the beginning of time."

Nevertheless, I believe that some of our experiences are carried forward into succeeding generations. How else shall we account for what we may call inherited wisdom? Put your finger in a sleeping baby's hand. What does the baby do? It closes its hand on your fingers. Why? Because some of the little peoples in this baby remember the time when their forefathers lived in trees and it was necessary, to keep from falling and breaking their necks, to close their hands upon the limbs of trees.

What we call 'inborn traits' are recollections of earlier experiences that the little peoples have brought along with them. Take an Indian baby, for instance. No matter how hard or how long you may try, you can never make a white man out of

that baby. The little peoples in the baby will not permit you to do so. They have their ideas, gained from preceding experiences, of what a human being should do. You may repress these little peoples to the point where you believe you have made an Indian into a white man, but, when you least expect it, they will jump out at you and startle you with a war whoop. Of course, what you do to the red little peoples will constitute part of the recollections that they will carry on into their next life-experience; and when there have been enough such experiences the Indian's 'inborn traits' will have been changed."

The Bank Clerk who was a Galley Slave

"That is about the way I look at it. I do not see how there could be any such thing as carrying from one person to another the bulk of the recollections that the little peoples have as they go along. These minute intelligencies that carry our records would become so burdened, if they did not forget most of their experiences, that they would have no further capacity for memorising. And inasmuch as the same little peoples never reassemble in another body, there can be no such thing as the perpetuation of the individual in another earth-life."

The wonder of the world appears to grow upon Edison as he himself grows older. Some minds naturally go out to the big things of the universe—the suns, the planets, the great constellations and the great spaces—but Edison's mind seems to go out to the infinitely little; and nothing seems so little that it does not disclose life. He spoke with awe of the fact that when New Hampshire granite is ground up and placed in water, minute particles of life appear upon the surface; particles of life that for perhaps hundreds of millions of years were locked up in the granite.

The mystery of life is even more of a challenge to Edison than it is to the ordinary man. For almost twenty years I have listened to him, from time to time, as he speculated upon it. Always he has reminded me of a man walking around an object, to view it from every angle. He seems to go about his philosophising as he does to make an invention. He experiments with ideas as he does with materials. I suspect that he sometimes tries out opposing ideas to ascertain which one can most successfully defend. Lincoln used to do this in politics. Before he became finally committed to anything he used to try to see how good an argument he could make against it. A few years ago, Edison told me he thought there was so little life-force in the world that it could not accept more than a fraction of the

opportunities for its expression. The other day he told me there was probably ten times as much snake-like force in the world as could find means of manifesting itself. I do not know whether he meant that snake-life is so preyed upon that it finds difficulty in getting on the map, or whether he is experimenting with a new concept pertaining to the volume of life-force.

Life a Force Flowing Into a Mould

Edison has entirely an original concept with regard to life. He sees it as a force that flows into a mould and functions according to the mould. He says a seed, or an egg, which is but another name for a seed, is wholly without life and is nothing but a blue print. Life-force flows into the seed and manifests itself according to the plans and specifications laid down. If the seed be that of a chicken, the life-force soon arrays itself in feathers and begins to cluck or crow. If the blue print was laid down by a flower there comes another flower. It was with this theory in mind that Edison, a few years ago, conceived the idea of a deficiency of the amount of life-force available to this planet. He said the earth would long ago have been smothered in cod-fish if there had been enough life-force to convert all of the eggs into fish.....

Perhaps the most amazing demonstration that Edison or anybody else ever gave of this power took place a few years ago. Edison spent a day going through his cement factory. He took no notes on paper, but the next day he dictated a list of 600 things that he wished done to the machinery and fixtures, in each case stating carefully the exact nature of the thing he wished done. This involved the naming of machines, and the citation of various shafts, belts, wheels, bearings and what not, that were to be fixed. I doubt if anything like this was ever done before by any man. Yet, when Edison was a young man, standing in line before a tax collector's window, he was asked his name, could not tell it, and was fired out of the line. But this, of course, was because he was thinking as he went about something else that he forgot both who he was and where he was.

You now have Edison's answer to the question: "What is memory?" It is the action of a particular form of intelligence, manifested by a certain group of the "little peoples". What is man? According to Edison, man, too, is nothing but intelligence.

"I consist," said he, "of 183 pounds, mostly of gross matter. Whatever intelligence I may have is furnished by my little peoples who weigh nothing."

Pictures by Radio

HOWADAYS one's head spins at the rapidity with which one radio feat piles on top of another. A comparatively short time ago folks were marvelling at the wonder of broadcasting a single human voice to millions of persons. Only a few weeks ago a flash was relayed around the earth in five seconds—less time than it takes a man to run fifty yards. Now comes the photo-radiogram, which sends photographs from London to New York in twenty minutes. "Moreover," remarks the *New York World*, "they are good pictures."

On December 1, observes the *New York Evening Post*, "transatlantic photography took its place among the miracles of communication as an established fact". Capt. Richard H. Ranger, the developer of the system and the inventor of its unique features, also says, in a *New York Times* interview, that facsimiles of typewritten, handwritten, and printed words, have been transmitted at the rate of seven words a minute, and that within a short time this rate undoubtedly will be increased to twenty words a minute, which is about the average rate of sending words by radio. Briefly, says one reporter, the engineers of the Radio Corporation of America, working in conjunction with the General Electric Company, and using the facilities of the Marconi Company of London, "have accomplished in less than two years what Alexander Bain first tried in England with the telegraph eighty-one years ago, and what scores of inventors all over the world have worked on since". It is the first practical system of speedily sending pictures across the Atlantic by wireless, says an Associated Press despatch from London.

Not only will newspapers and magazines be able to gather foreign photographs quickly by the new method, but banks and business houses can verify signatures, police departments can transmit the fingerprints of criminals from one continent to another, actual signatures can be placed on documents, facsimiles can be sent instantaneously, and even the photographs of criminals can be wirelessly to ships at sea for identification purposes. The Radio Corporation wishes to perfect the system before announcing rates, but a rough idea of the probable cost may be arrived at from a statement by a company official that some 600 words could be sent during the time required to transmit one photograph. On this basis, at press rates, the

sending of a picture would cost about \$ 40.

The system, while simple to radio engineers, is complicated in detail. The principle is entirely different from that of the photographs-by-telephone process. In the radio process, the picture, printed matter, or whatever is sent, is photographed by the ordinary camera, and the film is developed and placed around a glass cylinder which revolves like an old-fashioned cylindrical phonograph record. The picture is now ready to be transmitted 3,000 miles across the Atlantic Ocean. To quote from a lengthy and lucid description by Thomas Steep in the *New York Tribune*:

Inside this glass cylinder is an incandescent lamp, the light from which is focussed in a minute beam on to the photographic film as the cylinder is set in motion. As the light and dark portions of the picture are traversed by the light beam, the intensity of the ray is changed. This ever-changing beam, after having passed through the film, again is focussed through another lens outside the cylinder on to the sensitive element of a photo-electric cell, a recent research laboratory development of the General Electric Company, which transforms the light waves into electrical impulses, or waves, which can be transmitted by radio much the same as a regular wireless telegraph message.

The photo-electric cell, referred to as the "eye" of the photo-radiogram transmitter, is a pear-shaped bulb about two and a half inches in diameter, which converts waves from the beam of light into electrical impulses or waves.

The bulb is coated on the inside with a highly reflecting thin film of metal, which prevents light from entering except through the window, and which also serves to insure good conductivity of the electric current. On the metalised surface of the bulb there is a deposit of a potassium compound. This surface produces a current which depends on the amount of light it receives. Thus, when brightly illuminated through the window, it gives more current than when less light passes through.

The current enters the photo-electric cell through the negative electrode, or cathode, which is on the side of the bulb. The light-sensitive bulb coating gives off electrons—particles of electricity—the number depending upon the amount of light received. These electrons pass through the space to the anode.—*Literary Digest*

Art. 81

The State shall maintain, or, so far as necessary, subsidise, institutions for instruction in the technical professions, in agriculture and its allied pursuits, in commerce and navigation, and in the fine arts.

It is to be noticed that the President appoints the Professors of the University. There is, therefore, ample provision being made for education. It may be pointed out that so far as the appointment of the Presidents of the Supreme Court and of the Supreme Administrative Court are concerned, the heads of the Court are consulted. There is also provision that separate laws shall be passed for the appointment of other officers.

As to National Defence, every Finnish citizen must take part in the defence of his country or assist therein as prescribed by law. The Bank of Finland appears to be a State institution, and it is to be administered by regulations which have to be enacted by the Diet. These provisions shortly summarise the main details of the provisions for the Government of Finland. There are several clear statements as to the freedom that is to be enjoyed by the citizens. For example:

Art. 10

Finnish citizens shall enjoy freedom of speech and the right of printing and publishing written or pictorial representations without any previous restraint being imposed. They shall also have the right of assembly without previous authorisation, for the discussion of public affairs and for all other legitimate purposes, and the right of forming associations for purposes not contrary to law or good morals.

The rules governing the exercise of these rights shall be determined by law.

Art. 11

The domicile of Finnish citizens shall be inviolable.

The conditions under which domiciliary searches may be ordered and carried out shall be determined by law.

Art. 12

The secrecy of postal, telegraphic and telephonic communication shall be inviolable, except when otherwise provided by law.

Art. 13

No Finnish citizen shall be tried by any other Court than that which has jurisdiction over him in accordance with the law.

Art. 14

Finnish and Swedish shall be the National languages of the Republic.

The Finnish Government has followed the example of Norway in prohibiting hereditary titles.

It may be asked, how comes it that this form of

Free Government has been accepted in Finland, whilst the rule in Russia is quite different and distinct? What the Soviet Government in Russia is, need not be detailed because we have had various books from travellers in Russia, stating what has happened and how Government is maintained in that great country. Is it realised that the Empire of Russia is about one-sixth of the globe, and that from 1919 down to about two years ago, there died in Russia more than seventeen millions of people, over two million from fighting and the balance from poverty and disease? Finland has escaped these direful calamities, and it may be asked, how comes it that it has such Free Government and such able administration compared with what are in other parts of the Russian Empire? May it not be explained by the race and by the great advance that education has made in Finnish territory? In 1900, it was said that so far as education was concerned, only 4.8 per cent of the total male population of Russia were receiving primary education, and only 1.6 per cent of the female population, while at least one-half of the schools were under Church control and were very badly officered. In the whole of the Russian Empire there were few Universities, and so far as special schools, medical and others were concerned, they were negligible. In Finland, on the contrary, education was looked after. They had, as has been stated, a notable University that had done great things for the education of the Finnish people, whilst they had special colleges for girls, special schools and many high schools, technical colleges and other institutions for the higher education of its citizens, and this was stated by Dr. Gosse in his article on Finland Literature in the 11th Edition of *The Encyclopædia Britannica*: "Finland is wonderfully rich in periodicals of all kinds, the publication of the Finnish Societies of Literature and of Sciences and other learned bodies being specially valuable." In fact, as compared with Russia, Finland is an educated country, and the result is seen in the form of Government that its Diet has passed. It has also had Local Self-Government, which is as necessary for the education and freedom of the people as schools and universities, and now in the midst of great trouble and of revolution it has issued a form of Government that is second to none perhaps in the world for its freedom and for its simplicity. Ought this not then to be a lesson not only to Russia but to the world as to what the effect of higher education and decentralisation of Government is in the Government of the people?

Little Stories of Indian Life

BY A. JANAKI RAM

I. THE TEMPLE

It is the night of the Full Moon—the sky, cloudless, the night, bright, glorious and serene, the breeze, sweet, gentle and cool. The water in the tank, still, clear and pure, reflects the glorious firmament with scrupulous and delightful accuracy. The silence is deep and profound, everywhere and all around, and into the silence creeps the sweet music of the Temple bells—a gentle reminder. The silent crowds of devotees hasten on their way, stopping at intervals—now to buy some flowers, now some camphor, fruits or pan.

The passage to the Temple is brightly lit, and lined by mendicants: some blind, some bereft of a limb, some clad in salmon-colored robes, some besmeared with holy ash, some with vermilion on their foreheads; and few, if any, are the pilgrims who pass on without dropping a coin into the begging bowl.

The bronze gateway is surmounted by a high Gopuram, a tower built by Kings of yore. In it, in tiers one above the other, are hung lamps—not the electric bulbs of civilisation, but old fashioned oil-lamps, covered by glass domes, and placed in niches well protected from wind, beckoning to pilgrims miles around.

Entering the Temple Yard, the groups of worshippers wheel to their left and perform the Pradakshinā—they go round the central Temple three times, some chanting shlokas from sacred verse, others deep sunk in silent adoration, all pious and serene.

The three rounds completed, they approach the Shrine proper. Facing the entrance is a huge statue of the Sacred Bull, the Nandi of Lord Shiva; behind him a tall bronze pillar, Dhvajastambhā, flowers and cocoanuts are reverently placed before the Sacred Vahan of the Regenerator, and then the devotees turn towards the Shrine.

They catch the first glimpse of the Image, in the very heart of the Shrine, which is placed at the end of a long corridor, lighted by arch after arch of

simple oil-lamps. The multitude as of one mind prostrates, then rising, nears the Shrine.

There, on a high Altar is the Image of Lord Shiva, made of pure gold, adorned with priceless jewels; the many-armed Natarāja is dancing the Dance of Creation or Destruction—the symbolism the learned translate in both ways, and, indeed, both are stages of one cycle.

The Altar is surrounded by priests; at the head of the Altar is the High Priest, age adding to his dignity, dressed all in rich silk. Alert, waiting for his word, watching for his signal, are the other priests, ready to hand him the necessary articles for worship. The Poojā begins. The High Priest chants sacred shlokas with a voice musical and dignified, now pitched high, now low. Sacred rituals are performed. The Holy Basil leaf is placed at the Feet of the Lord, and finally, a plate, on which lies a big ball of burning camphor, is handed to the High Priest who reverently moves it in front of the Lord in a circle, and then offers it to the worshippers below.

All the while, scarcely a movement is observed in the multitude of devotees—all attentive, with palms pressed close (the Hindu salutation), all lost in devotion. Now they prostrate, rise and press forward to offer flowers and cocoanuts, sovereigns and camphor, to the Lord. A mother takes her child in front of the Image and teaches him to worship. The tiny palms are pressed close and the head bent low. The child then prostrates, and rising, with a swift movement slaps himself simultaneously on both the cheeks—a form of self-inflicted punishment for Divine Laws violated, handed down to us from generation to generation.

Suddenly, into the silence of the night there rises the cry in one voice: Mahadev! Mahadev! The worshippers turn their steps homeward, silent as they came, and with them I also pass out into the silence of the night.

If Henry Ford and Edsel Ford predict a sky full of airplanes, they will manage to provide those airplanes. This writer, some weeks ago, saw the first all-metal Ford Plane, in the Ford Factory, shining like silver, light as paper, strong as steel, made of Duralumin—94 per cent aluminum, 4 per cent copper, 2 per cent of other alloy. That machine is now flying and, impervious to the weather, it

can be left out doors, anchored to the ground, no hangar necessary. It will carry 12 passengers, or a ton of freight. And in two hours it can be changed to a bomb-dropping machine, should foolish foreigners come to disturb its peaceful uses. A short time, and our airplane problem will be solved. Thanks for that.—*An American Paper*

Religious Education in Elementary Schools

By M. KRISHNAN

[At a meeting of a large number of Head Masters, Head Mistresses, and teachers of the Madras Corporation Schools, held on Saturday, 2nd May, at the Periamet Corporation School, with Rao Bahadur T. Varadarajulu Naidu Garu, Chairman of the Education Committee, Corporation of Madras, in the chair, to discuss a Scheme of Religious Instruction in Elementary Schools, Mr. M. Krishnan, Superintendent of the Olcott Panchama Free Schools, gave his views as to how religion should be taught to the children.]

RELIGION, being synonymous with the Science of the Self, ought to pervade the whole life of the children. Religion for children very largely depends on the training and the atmosphere which surrounds them, both at home and outside, but mainly at the school. Though the education at school has to work in co-operation with the conditions at home, the subject will be dealt with only so far as it concerns the day schools.

The dominant note of childhood being Creative Activity, the child's religion must be practical, associated with activity. The child is naturally very religious. The teacher should use his influence over him to train this religious impulse in the right way. He should have such occupations as would bring out all the devotional, æsthetic and creative faculties in him, thus affording facilities to manifest as much as possible the love, joy and strength aspects of his life.

Religion in relation to children should be looked from two points of view: Attractiveness and helpfulness or usefulness. Religion should not be a dull thing for them. It might be made sufficiently interesting through:

1. Songs—devotional and inspirational, recitations of shlokas and stotras, chantings and readings. In the early years religion should be taught through sound. It does not matter if children do not understand the meaning of what they sing, recite, chant or hear. But this should be done in such a way that the children will be able to feel the spirit of the songs, chanting or reading.

2. Music—instrumental, like vinâ, violin, sitâr. Please do not introduce the harmonium into the schools.

3. Stories—of Great Teachers, Heroes, and Heroines.

Life of Shri Râma, stories of Bâla Krishna, Krishna and Gopala, story of the Pândavas, Prahlada, Dhruva, Bhishma, Yudhishtira and his dog, Markandeya, story of Shibi, Savitri, Damayanti, Life of Lord Gautama Buddha, Story of Chatta and Buddha Dipankara, Lord Buddha and the lame lamb, Life of the Lord Christ, Life of Lord Muhammad, story of Prithvi Raj, Ashoka, Akbar,

Sivaji, Mira Bai, Ahilya Bai, Nandanar, Tiruvalluvar.

4. Pictures, Paintings, Statues. Lantern slides and cinemas, beautiful and inspiring pictures illustrating the lives of great men. Pictures breathing the spirit of grandeur and beauty in nature, like powerful mountains, beautiful waterfalls, and lovely valleys, Cinema films like the Birth of Shri Krishna, Birth of the Lord Christ, Markandeya.

5. Little Religious Plays—such little plays where children impersonate big characters, where they understand what they stand for and what lessons they teach through their lives, *e.g.*, a boy, acting the part of Shri Râma, will be inspired by the lesson of that great life, so also the part of Bhishma who stands for truth, courage, self-sacrifice, and devotion.

6. Little shrines and temples. Let the children build these and decorate them. Let them offer poojâ. During worship, let them sing together, and dance together. Let them invite other children and also the elders for worship. All these develop the artistic side of their nature. Teach the children a number of Kolattam and Kummi exercises.

7. Processions and bhajanas. The procession of a large number of merry children, cleanly dressed, with joyous and happy faces brimming with devotion and enthusiasm, will have a great moral influence even upon the elders in the village.

So far the attractiveness side of religion has been dealt with. Through the second aspect of religion, helpfulness and usefulness, there are three main points to be inculcated upon the children, Brotherhood, Justice and hope.

The idea of the Fatherhood of God and nearness of God must be well impressed on the children. He must be a Loving Father, full of tender sympathy and compassion, and not One who strikes terror in the heart of the children. This idea will be understood quite naturally by them.

Under Brotherhood, the belief in the existence of the Elder Brethren is of the utmost significance. Fresh as they are from the heaven world, the children understand, by their intuition, very easily such truths as that they are being led and their lives are watched by the Superhuman Beings like Lord Buddha, Shri Krishna, Shri Shankara, Lord

Muhammad, Lord Christ. We must link up the heart of the children with those of the Rishis, of the greatest men and women and of the country. The Saints and heroes should be made living personages to them. The children are full of faith and imagination. Their belief in Angels and Fairies is of great importance to the teachers. This faith in the Rishis, the Directors of our destiny, is of immense advantage to the teacher.

The children should then be led on to realise that all human beings are brothers, even the submerged classes; when the children are surrounded with freedom, we see that they make no differences like the higher and depressed classes.

They should be taught to be friendly towards the lower kingdoms of nature—animals, plants and minerals. Animals and plants should be the pets of the school. The children should treat these with tenderness and love. Through this, they will gradually realise the Unity of Life. Suggest to them that these members of the lower kingdoms also feel the joys and sorrows that we feel, *e.g.*, beating, pinching. When we refuse food to them, they die. Let the children be taken out very often into the heart of nature. Let them worship, adore and admire, and enjoy the beauties of nature, the beautiful waterfall, the powerful sea, the majestic mountain and the sweet valley. They will feel happy in the Beauty of God, not only in His Truth. In this respect, Hinduism is one of the most practical religions. The Pancha Mahayagnas, which every Hindu has to observe everyday, are only rules laid down for us to do our duty towards these brethren of ours.

Then will gradually dawn on the minds of these children that all religions are fundamentally the same, but are only different paths leading to the One Goal, the One Father.

Next, they should be made to understand how justice has been continually exemplified in nature. As we sow, so we reap. This justice is the basis of hope.

Strength of character and mind comes only through pain and suffering, and not through joy and happiness. "Joys impregnate, sorrows bring forth, out of suffering there is hope. Out of suffering

grows strength, courage. This courage has more resources against misfortunes than reason." Out of this courage, the children will rightly struggle to override their difficulties and develop their wisdom through that pain. They will discover themselves as workers, and, working unselfishly, become inspirers of others. The children should not be afraid of death.

This will bring them more into unity with life, through their self-sacrifice. Out of this strength, they will "effort"; children should never be discouraged, but always encouraged. (Devotional attitude should be insisted upon in the ceremonies and poojâ in the temples.)

We should associate, with the teaching of religion, Peace and Joy (children should feel happy); Rhythm (get the children to do things together, sing together, sway together, associating beautiful colors with songs wherever possible); Reverence (which is awe at first), and Compassion (towards all, but particularly towards the lower kingdoms).

The teaching of religion very largely depends upon the attitude and example of the teacher. He must surround the children with objects of love and not of fear, with objects of beauty and not of ugliness, with rhythm and not with chaos. In many elementary schools in Madras we see the walls of the classrooms decorated with all sorts of brown paper drawings having nothing of beauty or inspiration in them. In some schools the classrooms are crowded with benches and other furniture giving no scope for free movement of the children. On some tables we find the teacher's symbol of power, which, whenever opportunity arises, comes freely into contact with the delicate bodies of the children. These should give place to beautiful pictures of great men and nature. The rooms should afford free movement for the children.

Each classroom should possess some plants which are taken care of by the children. The children should breathe freely without any fear of the cane.

The teacher must be an example of joy, beauty strength and love. Then only can he bring about the internal equilibrium in the children. Then religion becomes the link between God and man.

The Child Welfare Bureau of Del. A.

WATCH-WORDS

"The childhood shows the man, as morning shows the day."—Milton.

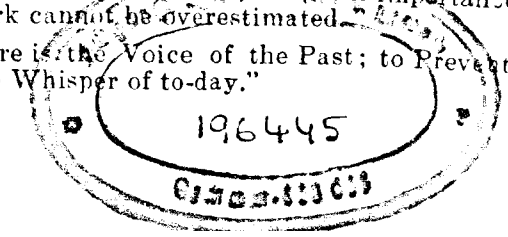
"The hope of the Nation lies in the children."

"The country that cares most for its children will be the greatest country."

"Seeing that the children of to-day will be the men and women of the future, the great importance of this work cannot be overestimated."

"To Cure is the Voice of the Past; to Prevent, the Divine Whisper of to-day."

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Youth Power in India—II

DECISIVE CHARACTER AND EFFICIENT MANHOOD

THE possibilities of the Youth power in this country are immense. What is needed is the consciousness of that force and knowledge and ability to apply it in time. It needs the force of a mass movement, a collective, comprehensive organisation, which would itself be a driving power towards the common objective. It needs decision, certainty, not delay, doubt and despair. The cumulative effect of this can only be achieved by individual character. And character without being a force is a stone without movement. It is not a possession which a human being worth the name can do without. It is a quality that every organism is endowed with when it comes into the world, as it is endowed with other physical qualities.

We have often seen persons, like straw, being blown about. We see them perplexed at every turn; they are easily diverted from their views and frustrated in their pursuits, and they become the playthings of impulses and doubts. Passions play about them, reason and emotion easily sway them, and they come to no decisions or aims. They are the drifters, the muddlers. The lines of their thought and action are often crossed and recrossed, and when they form the majority in a country they build such a public opinion as will not lead the country anywhere. That is why we have come to have so many divisions and demarcations which cannot easily be classified, because most groups do not ever possess the least striking characteristic of their own. That is why we have hesitation everywhere, doubts and questionings, and at the same time anxiety and pain of not having been able to come to any decision or conclusion. That is why also there is lack of leadership of the right kind, and apathy or hesitancy in the following.

That is the general feature of the public life to-day. As soon as one course of action is suggested, up rises intelligence of another sort to demolish it and build on its ruins another alternative, only to be toppled over by a third. It is a mistake to suppose that this is due to the growing spirit of Individualism or to the spirit of Democracy; rather it is due to the unorganised brain-power of the people to realise a common objective by a common action. The mind is tossed about like a rudder-

less ship, and while it is so tossed it causes pain because it has not reached a definite end and there is vexation that revelation or help does not come from a new and original source. At the same time there is engendered a growing discontent or disappointment in the minds of worshippers of popular idols that help does not come from the quarter from which it is expected. Thus the attitude of expectancy is kept on till presently there is no longer any necessity for a decision or till it is too late. The result very often is that there is no decision arrived at and even before any decision can be arrived at the indifference of human nature to anything outside self of has asserted itself and taken away the zest of enthusiasm and energy of action.

The reason for this pathetic situation lies essentially in the lack of character, or force or indecision. The bane of progress has been that this indecision is always mistaken for careful reasoning and thoughtful judgment, or timely caution, or many other things besides. They who say this always forget that reasoning or judgment must lead to something definite, conclusions which cannot further be questioned, but in the history of our times they have really led to nothing tangible. The blind instinct of brutes is far better than the vacillation of the human weakling. It is pitiable in the extreme and becomes contemptuous in the eye of foreigners accustomed to quick decisions and quicker action.

This indecision often becomes a temperament and renders impotent the real force of individual character, so that even when a definite conclusion is arrived at, no energy is left to implement it. Somehow or mainly by this temperament we do not reach the end; we are always taken from happenings to happenings, and our progress becomes an event, not a slow organic process. That has been the main factor behind all the talk about the spirit of Indian Nationalism. What country had labored for Freedom for nearly forty years and brought forth nothing tangible? We are talking of Liberty and Freedom, as our fathers did during these last forty years, only our talk, may be, is more vehement or more clamorous, but still it is talk and talk only. Look at the history of the youth of any country that has wrought for her own Freedom. You will find that it was the

youth at the forefront that battled unceasingly, unhesitatingly and conquered or died in the attempt, without the questionings and doubts of the youth of to-day, in our country. It was the youth that rose in a mass to burst the bonds of tyranny and wrest the chains from off their fathers' hands. Through the one bond of patriotism, with one flame illuminating their way, upheld by that burning fervor of their Nation's service, there was such a sacred alliance of spirit between youth and youth that you could not create any party or division and try to separate the one from the other.

Owing to this absence of a binding alliance among the youth of this country it should not be supposed that they have become more reasonable or more advanced intellectually or more consciously individual than the youth of other Nations. The truth seems to be that they are more weak and more vacillating and more calculating or doubting beings than even the Negro youth who have combined for the regeneration of their race and the restoration of their rights.

It is not to be taken that emphasis is laid that the youth should form into a political organisation alone and fight for Freedom. There are thousand other ways to combine for thousand other purposes, all equally important as the fight for Liberty. The sad feature is they do not combine for anything. For instance, how many were enthusiastic when the Youth Movement was inaugurated in this Presidency and how many now are thinking of it or thinking of it as only one of those periodical but fugitive waves of popular current, that flows for a time and then passes away? A calm reflexion will show that the reason lies in the indecisive temperament that seems to be the legacy left to the youth of this country by the events of the last few years. The taint of this indecisive atmosphere has touched the world of youth. After the schools and colleges close down they do not know what to do. When they come back after the vacation they take their degree and stand still, not knowing what to do. They are quite willing to work but they find no work, and to many unfortunately how to exist

is becoming a problem of life.

To a class of people such as these citizenship and service sound but empty words. "Band yourselves, form a central organisation, and start out with definite plans, some to villages and others to work along with the workers": if they hear these words they turn round sullenly and sit with folded hands with the cry: "In the meanwhile, what shall we do?" They forget that the youth of Ireland in their holidays and busy days set about establishing their own postal system, their own telegraph, their own trade, their own agriculture and commerce and prevented the outflow to other lands of the wealth of their own native land. Some went to teach in the villages and taught the villagers how they could be independent and in a very short time the villages were free.

It is false to say that the youth of this country cannot combine together for some solid constructive work. But for anything and everything in the way of National Progress the foundation should lie in the building up of character force in the individuals composing the Nation. It is not merely repeating from Smiles *Self Help*, when it is said that character in the youth must be a force. It is not asking the youth to be good but asking them to be strong; not opening their eyes to the consequences of an evil life but discovering to them the tremendous power that lies within them. The youth who fights the bully in the train on behalf of a weakling or an aged man, who speaks the truth in the face of the tyrant and takes his chastisement for it cheerfully, who puts himself in communion with kindred spirits for a sacred cause, careless of fatigue and frowns, fearless of defeats and dangers, ever hopeful and cheerful in the work embarked upon, he is the youth that India wants at this hour, and his is the force which, when enlarged and enriched by his thousand other comrades, will achieve for his Motherland in Peace what the youth of Ireland achieved in War and the youth of Egypt achieved in Mutiny.

D. S. R.

The Mosquito Danger

The wetness of last summer and the mildness of the winter are said to have given rise to something like a plague of mosquitoes. These insects are such efficient repositories of microbes and filth that their bite may cause blood-poisoning or disease.

Fortunately, they are easily dealt with. Stagnant pools which are close to places that have suffered from the pests should be sprayed with paraffin oil,

and everyone may sleep in peace again. This simple and easily procurable remedy is the most efficient, and it was by its use that Panama was made habitable again.

Another remedy is a weak infusion of creosote, but this requires more skill to use if cattle are liable to drink the water. One or other, however, must be used if many parts of the countryside are not to prove very inhospitable to visitors.—*W. Gazette*

The Centenary of the Modern World.

BY SIGNOR GUGLIELMO FERRERO

The distinguished Italian Philosophical Historian

AMONG all the centenaries which have been celebrated during the past few years, that of the invention of the Railway seems to deserve special attention. A hundred years ago, in 1825, ten years after the Peace of Vienna and the Battle of Waterloo, and four years after the death of Napoleon, the first railway line came into existence in England, and began to work fairly regularly between Darlington and Stockton.

What changes have taken place in the world since those days! Reality has far surpassed the most audacious and optimistic prognostications of the generation whose eyes first saw the extraordinary event. Human beings have increased and multiplied on the face of the earth in a way previously unknown in the history of the world. The ancient world had admired and almost adored one single *URBS*, as the city of cities; to-day Europe and America can count cities by the dozen which in their size, splendor and riches might vie with each other for that title of honor. Famine has disappeared. Despite the wars and revolutions by which the world has been troubled during the last ten years, fabulous abundance still reigns on the earth. The richest epochs of the past were poor in comparison with our own time. Even families who live in quite a modest manner now enjoy comforts which in old days were denied to the richest.

Space is no longer the great enemy of humanity, the barrier to break which all efforts remained futile for so many centuries. It is thanks to the Railways that man was able to begin the real conquest of the globe. Up till the end of the fifteenth century he did not even know the planet on which he lived. Between the sixteenth and the eighteenth centuries he explored it as well as he could with the small means which were at his disposal. A century ago he began his conquest of it by means of railway lines, and to explore it on a grand scale. The United States are the most prodigious example of the intensive exploitation of an immense continent which has been rendered possible by the railway system.

Railways, and all the other increasingly effective means of transport which to-day complete or rival their power, have shortened space, lengthened time, and given a kind of ubiquity to humanity based upon perpetual movement. Since a hundred years

ago, this mobility has increased from generation to generation in the great torpid mass of humanity; it has passed from the towns to the country, from England to France, to all the other countries of Europe and America, and now it has attacked the Muhammadan countries. I read recently that after the establishment of the French Protectorate in Morocco, "roads, automobiles, and telephones have abolished distance, and Allah knows with what fury the Moroccans have taken to travelling! They think as little of paying thirty or forty francs for a car with which to traverse 300 kilometres as we do of taking a tram."*

Stephenson, who four years later, in 1829, succeeded in definitely solving the problem of mechanical locomotion, was a sort of Christopher Columbus of the nineteenth century, but a less mysterious and romantic figure than his predecessor. His invention, like the discovery of America, was one of those individual acts which by their far-reaching consequences have changed the course of history. For a century past, Stephenson's locomotive has been the most popular symbol of that confused thing to which we give the name of Progress. This somewhat crude symbolism hides a very genuine historic appreciation. The age of iron and fire, of great industrial development, of quantitative civilisation, with all its grandeur and all its horror, began a century ago, with the first railway line. The railway engines are the parent invention of all the immense throbbing family of metal machines which are worked by steam or electricity in the present day. Railways may be said, in a certain sense, to have let loose all the formidable economic activity of our time. The rapid production and consumption which now characterises industrial civilisation would not have been possible with the former slow and tedious means of communication. Industry, agriculture and commerce were able to develop and perfect themselves during the last hundred years in proportion to the rate at which the means of communication by land and sea became more rapid and efficient.

The centenary of railway trains is, in fact, the centenary of what we are accustomed to call the modern world. "We shall soon be a hundred years old: we were born with the railway trains: we have

* *An African Manual of Musalmán Politics*, Paris, 1925 (p 103).

grown with them, and so rapidly that we do not have to fear the reproach that we have wasted our time."

But, if the Railways have given even more riches and power to humanity than they had promised, they and all the other machines which have been invented during the last century to augment production have also disappointed humanity on one important point. When these machines first appeared, which could do in one hour the work which would take a whole day if it were done by hand, an audacious hope flamed up in men's minds: at last they would escape from the curse pronounced in the Garden of Eden, which had condemned them to hard toil. "*In sudore frontis tue vesceris pane.*" Now that the machines worked so swiftly and with such brilliant results, they were the benefactors of humanity. Thanks to them, man could peacefully enjoy abundance, and be much richer while working much less hard.

But what happened was the exact contrary. The great industrial development began its campaign by making its workers labor in horrible factories for fourteen, sixteen, and eighteen hours a day; it declared war on even the most venerated Saints in the Calendar, who, in former days, insured frequent rests to poor tired humanity. It abolished all feast days, and did not even respect Sunday. One of the reasons why, at the beginning, the great industrial development flourished more rapidly and easily in Protestant countries, lay in the fact that the Protestant Churches had already abolished adoration of Saints, and, in consequence, had already done away with a number of feast days which were

still observed in the Roman Catholic countries.

This bitter surprise, this paradoxical contradiction, filled the dawn of the great industrial development in all countries with lamentations and cries. Why were men to toil like whip-threatened g slaves and harder than they had ever worked before, now that they had succeeded in creating such powerful collaborators, each of which produced as much as a hundred or a thousand men done before they appeared? Why were the machines, which ought to have been friendly men, transformed into their ferocious captors pitiless gaolers?

This question tormented the generation which saw the first development of Railways and all other producing machines which they brought their train. That generation vacillated continually between the most smiling optimism and gloomiest pessimism. Sometimes it thought that it was marching on towards the Golden Age; sometimes it asked itself if it had changed the world into hell itself. At last a doctrine was evolved which was thought to be a solution of the enigma, by attributing the disappointment of men's former hopes to the wickedness of a small number of egotists. Machinery was really the friend of humanity; it would have allowed men to live in abundance, leisure, and the enjoyment of the most refined pleasures of the mind if an audacious and cruel minority had not taken possession of it, in order that they might torture humanity. — *Illustrated London News*

(To be Continued)

My Husbands

BY N. C. R. CRANE

[A Girl of Ten]

I hear my husbands marching
The æons all adown:
The shepherd boys and princes—
From cavern unto crown.

I hear in soft recession
The praise they give to me;
I hear them chant my titles
From all antiquity.

But never do I answer,
I might be overheard;
Lose Love's revised illusions
By one unhappy word.

I sit, a silent siren,
And count my cavaliers;
The men I wed in wisdom,
The boys who taught me tears.

To some I gave devotion,
To some I kinked the knee;
But there was one old wizard
Who laid his spells on me.

He showed me like a master
That one rose makes a gown;
That looking up to Heaven
Is merely looking down.

He marked me for the circle,
Made magic in my eyes;
He won me by revealing
The truth in all his lies.

So, when I see that wizard
Among the marchers dim,
I make the full court curtsy
In fealty to him.

The Centenary of Huxley

Scientist, Fighter and Philosopher

BY H. C. F. GENUA

IT is exactly a hundred years ago to-day since Thomas Henry Huxley was born, and now it is possible to see through the storms in which he became merged the outlines of a striking and splendid personality. Much of the detail of his life has a strange and puzzling flavor. What mad jest of fate, for instance, was it that placed him at the school which produced John Henry Newman? Nature and nurture the characteristic thought of to-day suggests have no comparable influence upon human beings. The former tends to dominate the latter as though it were alone at work, and certainly this early schooling must have been an irrelevance in both of these lives.

Again, how is it possible to think oneself back into the acrimonious theological controversies into which Huxley entered with what seems now almost boyish zest? The attacks and retorts which seemed so penetrating or devastating, even the names of the protagonists, seem strangely remote and unreal, so that one almost feels inclined to dismiss them as figments of the imagination. But this impression is perhaps one of the most conclusive evidences of Huxley's influence.

He described himself as a "scholar"; but in point of fact he was essentially a banner-bearer, a fighter. There was something leonine about his face; and I was struck on a visit to Oslo, some seventeen years ago, by a strange sense of familiarity as I examined the stone statues of Ibsen and Björnson outside the State Theatre, and as I watched Herr Lorland in the Storthing. It was the recollection of Huxley's type of face and head they conjured up. Fighters all, each of these men gave one thing to his time, and it may have been the same thing. Each of them added something of liberty to the heritage he found.

Huxley and Darwin

Huxley found himself compelled to take up weapons against an obscurantism which has an odd parallel in certain States of America to-day. A man of patent sincerity, he followed his convictions without a trace of consciousness that change of mind to many people invariably connotes a weakness in intellectual equipment. He held that scientific men were bound "to try all things and hold fast that which is good," and he condemned "ecclesiasticism in science" as "unfaithfulness to truth". At first he objected to evolution, but when

he became convinced he fought the battle that Darwin could never have fought, and it was mainly through his labors that the hypothesis became grafted upon the thought of his day.

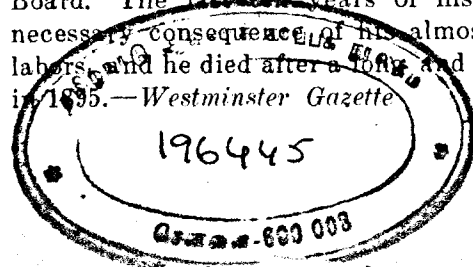
But he was considerably misconceived by his time. He was not merely the hard fighter he seemed. He was a devoted husband and father, and there are aspects of his family life which are almost too tender to be blazoned abroad. He was not only kindly; he was also humorous. He was an accomplished draughtsman; and he was a distinguished writer, with interests strangely alien to those of the man of science of to-day, which drove him to philosophical and theological speculation, and made him lighten his exposition with compelling imagery.

"A Man and a Citizen"

Is there a single scientist of eminence to-day who could have penned the following?

"If the fundamental proposition of evolution is true, namely, that the entire world, animate and inanimate, is the result of the mutual interaction, according to definite laws, of forces possessed by the primitive nebulousity of the universe, then it is no less certain that the present actual world reposed potentially in the cosmic vapor, and that an intelligence, if great enough, could, from his knowledge of the properties of the molecules of that vapor, have predicted the state of the fauna in Great Britain in 1888 with as much certitude as we say what will happen to the vapor of our breath on a cold day in winter."

There was something of splendor in his large-mindedness. The man who seemed to so many the enemy of religion insisted on the teaching of *The Bible* in schools, not only for its literary genius but also because he was "perplexed to know by what practical measures the religious feeling, which is the essential basis of conduct, was to be kept up, in the present utterly chaotic state of opinion in these matters, without its use". He held himself to be "a man and a citizen" before he was a philosopher, and not only sat upon ten Royal Commissions, but even worked on the London School Board. The last ten years of his life were the necessary consequence of his almost superhuman labors, and he died after a long and painful illness in 1895.—*Westminster Gazette*



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