Old-Time Secrets Puzzle Us Moderns.....

Because we can fly faster than the speed of sound, we are apt to think that there are no secrets known to the ancients that are hidden from us. But there are.

Modern generations have not produced a mathematician the like of Archimedes. When Marcellus attacked Syracuse, the authorities implored Archimedes to use his great mathematical knowledge to help repel the invaders. Archimedes despised applied mathematics. Yet he applied his knowledge of levers and pulleys so effectively that he launched a fully loaded ship single-handed; designed super-catapults that hurled stones weighing a quarter of a ton on the invasion fleet, and cranes that seized ships, spun them round and sank or dashed them against jagged cliffs.

Who knows what wisdom was lost when the library of Alexandria was sacked and burned. Six books we have of Euclid; what secrets did those contain that were destroyed.

We hold various theories about the way in which the Pyramids were built, how the vast blocks of stone were hoisted one on top of the other; but no one knows for certain.

In India there were even better mathematicians than either in ancient Egypt or Greece. They designed the great stone pagoda of Tanjore, nine hundred years ago. It is an immense pillar-like affair rising 216 feet—and crowning it is a massive block of granite weighing eighty tons. How did it get there?

What knowledge did they have which we do not now possess when they built the 238-foot Kutab-Minar Tower, near Delhi, erected at the whim of the monarch as a vantage point from which his daughter could view the holy River Jumna? For eight hundred years it has resisted sandstorms and violent rain; extremes of heat and cold; yet the surface is as perfect as when built.

Many modern ideas are not as new as we imagine. In 1943 it was announced in triumph that "refrigeration is being used in a new shockless, drugless, almost bloodless surgery. Ice numbs the nerves that carry the reaction of a wound to the brain and helps to prevent shock, which is one of the chief dangers of an operation. Also, as bacteria are living creatures, cold inhibits their growth and spread through an infected wound."

If we turn back the clock many centuries, we find Hippocrates, the Father of Medicine, was using ice and snow to numb limbs before operating!

Since the first world war, plaster of Paris has been widely used for the immobilization of broken bones. It was hailed as something entirely new. But the aborigines of South Australia, the oldest living members of the human race, have encased broken limbs in clay for centuries. Another innovation is the use of tiny clips instead of stitches for holding together the edges of wounds. But explorers tell us that South American Indians do the same thing in a different way.

They collect large ants with powerful jaws. Then they press the edges of the wound together and place ants on it. These insects clip their strong jaws into the edges of the wound, effectively closing it, after which the "surgeon" cuts off the bodies of the ants.

Scientists at Cambridge are now investigating old superstitions because they believe that many have a sound foundation. Much old lore has been preserved by gipsies.

Recently, a young soldier blinded at Dunkirk by the concussion of a bomb was sitting by the fire at his home in Cardiff wondering what fate had in store for him, when a gipsy, who had wandered in to sell something, turned to his father, "Why does the young man sit so aimlessly?"

"He is blind," explained the father, and related the story.

"I know how to help him," volunteered the gipsy. "Get some white flowers of elderberry. Put them in a sieve and pour boiling water over them. When cool, squirt the water into his eyes three times a day."

The father was dubious, for surgeons held no hope for his son. However, the treatment was tried till the son complained that the lotion made his eyes smart.

Months later the gipsy called and inquired after the young man. The father explained what had happened. "But that," insisted the gipsy, "is a sign that the inflammation is being drawn out." So they persevered.

Gradually the son began to see. In eighteen months his sight was perfect.

In Southern Ireland it has been customary for cottagers to cover their land with seaweed and sand, as fertilizer. But not all sand will do. They first boil a sample with vinegar and, if it bubbles, use it. If it doesn't, the sand is rejected. Scientists investigated this old custom before the war and found that sand that bubbled contained calcium carbonate, and that if boiled with vinegar, which contains acetic acid, it will bubble. Calcium carbonate is good for crops.

Blackleg is a terrible cattle disease. But the Irish had a way of immunizing their cattle. They cut off the leg of a cow that died of blackleg and hung it for a month over a peat fire. Then they cut off strips and inserted them under the skins of healthy animals—presumably without knowing why.

Scientists who investigated the custom soon realized that this was merely a crude way of placing the pure culture of blackleg germs in a chloroformed atmosphere, and then injecting them into healthy animals.

The Romans bored wells to great depths. How, we do not know. They made glass that bent, but did not break. Their Tyrian purple, made from the shell-fish, murex, has not been matched for beauty. We know that swords made in Damascus could sever a hair floating in air. Whether science will be able to investigate the formula by which they were made is doubtful.

There are many such things we should like to know. Professor Lindner discovered that in the days of Nebucadnezzar the Babylonians possessed a secret for making solid beer, called saviq, which they carried on long journeys. All they had to do was to drop a brick of saviq into water; when it dissolved, the result was beer.

MAGNETIC CLUTCH

Two General Electric engineers have improved on a magnetic-fluid clutch which was originally devised by the National Bureau of Standards and which, though only six inches long and six inches in diameter, is able to carry enough power to lift a ton 1,000 feet in a minute. Two metal cylinders, each able to rotate independently on the same axis, are separated by a magnetic mixture of oil and finely divided iron powder. When the unit is energized, the fluid instantly solidifies so that the two cylinders are held tightly together. As one revolves its motion is transmitted to the other. The clutch is still in the experimental stage.

"Left It Here Somewhere . . ."— Two bicycle owners appear puzzled as they seek their vehicles among hundreds of others wheels took place when cycling fans flocked to the Southern parked in a lot at a racing meet in London. The tangle of Counties Cycling Union International Racing Festival.

Predicts Rockets To Moon Within Seven Years Time

Egerton Sykes, F.R.G.S., is a member of the British Interplanetary Society, Founder and Chairman of the Research Centre Group. Writing in a recent issue of TitBits he makes the following predictions.

Man's conquest of space, interplanetary travel, and the commercial exploitation of the vast mineral resources believed to be waiting on the surface of the moon, are among the glittering prizes held out by modern scientists **if—and only if—** the nations of the worll abandon their dreams of subjugating a few paltry thousand miles of each other's territory and turn instead to the far greater challenge of the solar system.

Even since Jules Verne envisaged travellers being fired in a shell to the moon, and H. G. Wells conceived his gravity-resisting material called Cavorite, the idea of visiting the moon has captured the imagination of mankind. Now it seems to be in sight of fulfilment. Experts believe that a guided rocket, equipped with robot observers, will make the first tour round the moon and back again within the next seven years.

Once that has been done, and the recorded data has been analyzed, the way will be wide open for the most dramatic voyage of discovery in the world's history—the launching of a giant rocket-propelled spacecraft which will convey a human passenger to the moon and back.

The blue-prints for such a spacecraft are already in existence, prepared on similar line by both British and American scientists. Their translation into the first actual machine will begin only when the government of one of the great powers decides to allocate the necessary £10,000,000.

That estimate, huge as it is, assures that most of the component parts would be obtainable from existing factories. If they had to be specially built, the cost would be as high as that of producing the first atom bomb, and a similar vast plant would be needed.

Not unnaturally, the Germans were first in the field with research. Thea Von Harbou's famous film "The Girl in the Moon," shown in England in the late 1902s, was based on the work of the German Rocket Society, who later perfected the V-1 and V-2 for their assault on Britain. That Society has recently been reformed and, in addition to the British Interplanetary Society, there are a number of Rocket Societies in the U.S.A.

A typical blue-print for a spacecraft designed to take a crew of two fo the moon and back shows a seven-stage rocket powered by liquid fluorine, hydrapine and other fuels, and fitted with ejection cylinders to enable the seven parts to be jettisoned one after another during the journey. It is 352 feet long, seventy-four feet round, and weighs over 19,000 tons. In its nose is the return vehicle, a supersonic glider weighing no more than ten tons—a mere twenty-five feet long with a wingspan of fifteen feet.

The reason for this fantastic contrast in size between the two craft is that, until we can devise some simpler and less expensive method of shaking free of the earth's gravity, an enormous amount of force is needed to start the rocket on its journey. On the return trip the travellers will have the earth's gravity to assist them.

And what of the physical effects on the first moon-travellers, of being ejected at 360 m.p.h. on a journey of 240,000 miles?

Unless the strain of acceleration when the rocket is launched can be offset by the use of inflated cushioning inside the cabin and the use of drugs, they would almost certainly "black out" for perhaps the first three hours. They would be entirely dependent on the pressure apparatus and humidifiers to supply them with compressed air.

They might encounter the dangerous effects of cosmic rays beating on to the rocket with no external atmosphere to cushion them.

Once clear of the earth's surrounding atmosphere, at a height of fifty miles, they would be flying through perpetual night in which the sun, lacking any atmosphere to diffuse its rays ,is no brighter than a large star and daylight ceases to exist. Just what effect on the heart, digestive organs and other bodily functions the falling off of the gravitational force of the earth would have, nobody yet knows.

Assuming, however that the explorers succeeded in landing on that barren satellite, they would be more dependent upon their own resources than any two living creatures have even been in history.

Wearing their electrically-heated suits, never without their portable oxygen supply and air-compressors, they would hrve to go to work to build some form of shelter and grow atmosphere-producing plants before any serious study of metal and mineral resources could be undertaken.

The hazards are incalculable but not, I am convinced, beyond man's ingenuity to overcome. And once the outside edge of the earth's atmosphere fringe has been penetrated, still further journeys, of 240 days each, to Mars and Venus will be planned.

One not-far-distant day the world will wait, tense with excitement around its raidio sets and television screens, for news of the first two moon explorers. Despite the dangers, such is the pioneer spirit of man that every Rocket Society has already the names of thousands of volunteers whose ambition in life is to take the first step in man's conquest of space.

BIG METEORITE

Australia's half-mile-wide Wolf Creek Crater was blasted out by a meterorite, Dr. Edward P. Henderson told the Geological Society at its last meeting. The big hole was found in 1947 in the Western Australia wilderness by three American geologists who were prospecting for oil by plane. The crater has a diameter of 2,800 feet at the bottom and a depth of 150 feet. The meteor that made the crater is the second largest that ever hit the earth. The biggest struck in Arizona.

Queer Lawsuits

A claim for $25,000 which grew out of the complaint of a man about the small amount of ice cream he got in a cone recently came before an American court. The man thought he hadn't had his money's worth, and said so.

The ice cream seller sued him for disorderly conduct and the man was fined $10, whereupon the seller himself was sued for $25,000 on the grounds that the dissatisfied customer suffered a recurrence of heart trouble and damage to his reputation through the incident.

He capped this claim with another one for an additional $7,500 for mental anxiety caused by riding in a police van, loss of earnings, and medical expenses.

Some claim—some cone!

People sue other people for extraordinary reasons, and sometimes judgment is given in their favor. There is a case on record in which an American jury, trying a man for grand larceny, was sent to a hotel to spend the night. Next morning they returned to court and found the man guilty. Two days later, the court received a bill from the hotel for a long list of articles stolen by the jury!

A settlement for an undisclosed amount was announced at Stafford Assizes in an action by a miner who was struck on the head by a cricket ball hit for six on a cricket club ground.

The defence stated that the plaintiff was hit on the head in a public road by a cricket ball "which was most magnificently hit for six and cleared either one or two pavilions, according to which side of evidence you accept. Defendants feel he suffered great misfortune and are glad to make amends."

Not long ago, a sensation was caused by a case in which a man who stepped off the curb into the road without looking was ordered to pay $9,000 damages for causing the death of a pillion rider. In giving judgment, the judge said that he thought when the pedestrian stepped off the pavement his mind was on something else, and he did what people often do when hooted at—he did not stop, look and listen—but hesitated and then went on.

The pedestrian was in the wrong and there was no negligence proved against the motor-cyclist.

A few hundred years ago, it was quite in order to sue animals and insects. Complicated laws governed the misdoings of such wild creatures as rats, locusts and caterpillars on the assumption that, as God cursed the serpent and Christ the fig-tree, so the Church had legal jurisdiction over both the animate and inanimate in the entire field of nature.

In 1445, for instance, a crop-eating beetle was sued and a lawsuit started which was to last for 42 years. The plaintiffs, the Commune of St. Julien in France, finally agreed to give up part of a fertile district to the exclusive use of the insects.

"William" Drops To Seventh Place

The favorite boy's name for babies born last year was John. Favorite girl's name was Ann or Anne.

Order of popularity is officially given as follows for boys: John, Richard, Peter, David, Charles, Michael, William, Robert, Christopher, James.

For girls: Ann or Anne, Mary, Elizabeth, Jane, Susan, Margaret, Sarah, Caroline, Jennifer, Frances.

William And Mary

Richard climbed from fifth place in 1948 to second in 1949, while Tony (Anthony) fell almost to the bottom of the list. Among the girls, the first six were the same last year as in 1948.

Mary is always within the first three places. From the very earliest times the word has held sway as the commonest female name, no doubt because of the Christian reverence paid to the Mother of Jesus.

The drop to seventh place of William is remarkable, for throughout the centuries, this name has tied with John more than any other in popularity.

There is a marked tendency in the U.S.A. for parents to name their children "Duke," "King," "Prince," "Earl," "Bishop," "Judge" possibly in the belief that their forefathers must have borne those titles.

The truth is that these names can be traced back to the actors who appeared in the roles of kings, dukes or princes, and the rest in the Miracle Plays of the Middle Ages. Playing the same part in every play the actors become known to their friends not by their real Christian name, but by the name of their stage character.

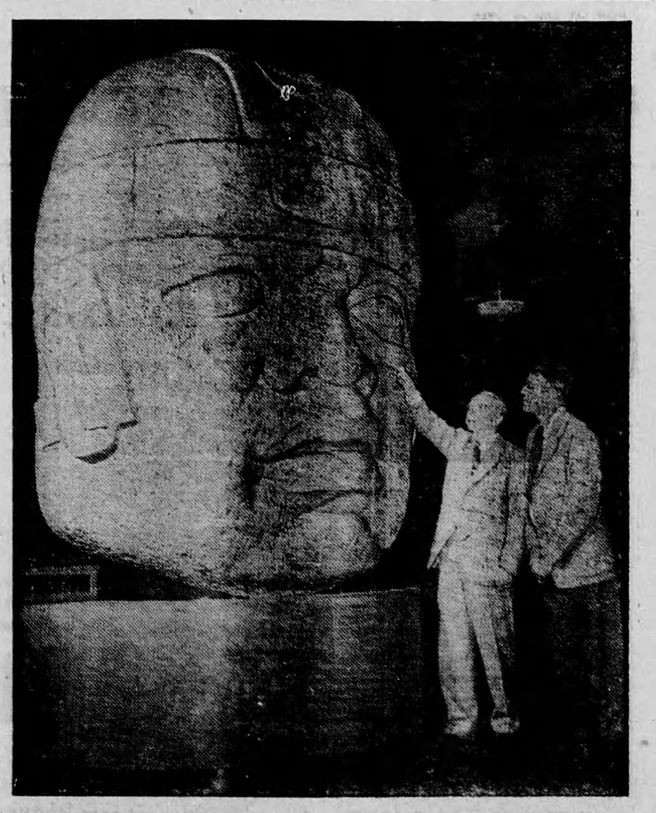
In the U.S., it appears that there is no legal objection to parents christening their children with the most outrageous names they can think of. There was a court case over the christening of twin daughters Kate and Duplicate. The clergyman refused to perform the ceremony, so the mother sued him. Another case occurred soon afterward when a parent wanted her twin sons christened Peter and Repeater.

Sensitive Stars

Film stars are notoriously sensitive about their own names. The ones with which they were christened often are considered not to be "box office" so they change them.

Here are some examples, real names first: Frederick Austerlitz, Fred Astaire; Claudette Chauchoin, Claudette Colbert; Mary Magdalene von Losch, Marlene Dietrich; Pauline Levy, Paulette Goddard; Archibald Alexander Leach, Cary Grant; Charles Edward Pratt, Boris Karloff; Frederic McIntyre Bickel, Frederic March.

Witness: When I said a fool and his money are soon parted my wife said, "Turn out your pockets."



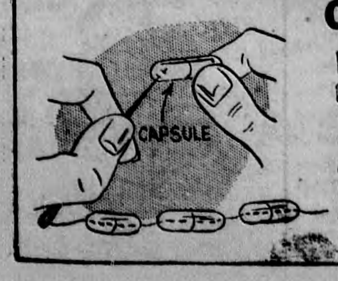
Strange Carving Discovered—In the jungles of Southern Mexico lies a huge, 15-ton stone head, believed carved at the beginning of the Christian era by an ancient people. This reproduction, now on display at the American Museum of Natural History was made by Dr. Gordon F. Ekholm, right, after the mammoth carving was discovered by Dr. Matthew Stirling, left. The original stone measures nine feet high, six feet wide, and 20 feet in circumference.

HOW TO FIX IT — By Harold Arnett

PROTECT PLANTS

PROTECT NEW TOMATO PLANTS AGAINST CUTWORMS BY WRAPPING STALKS WITH CIGARETTE PAPERS OR STRIPS OF OLD NEWSPAPERS.

CAPSULE BEADS



EMPTY MEDICINE CAPSULES CAN BE LACQUERED WITH NAIL POLISH TO MAKE A NOVEL STRING OF BEADS. USE CONTRASTING SHADES OF LACQUER.

JITTER — By Arthur Pointer