

THE HUMAN MACHINE

MAN'S BODY AND ITS WONDERS OF MECHANICAL DEVICES.

Many of the inventions of the day are infringements on the clever and ingenious devices registered in nature's patent office.

So fearfully and wonderfully is the human body made that scientists are beginning to realize that many of the inventions of the day are infringements on nature's patent office. A good deal of trouble and worry in the past could have been avoided had inventors made a careful study of the devices employed in making these human bodies of ours the useful things they are. The principles of the block and pulley or the tackle could have been discovered ages before had the files of nature's patent office been ransacked, for there are several complete pulleys in the body, notably the one which moves the eyeball inward to ward the nose.

Engineers made exhaustive tests and experiments before they discovered that a hollow shaft or rod of iron or steel is about twice as strong as a solid one. Yet nature had patented this device in our bones since the birth of Adam and Eve, and every important bone is practically constructed on this principle. The ball and socket of the hip bones were the forerunners of the modern ball bearings, and it was the first automatic oiling machine used in the world. The value of air pressure and a vacuum was unknown to man until the last century, but every one of us carried the secret in the air tight hip joint which nature had assigned to lessen the muscular effort to hold our legs upright in position.

Engineers have made wonderful progress in developing compound suction and circular pumps, but all of the principles contained in them are found in the heart, and this little pumping machine is still without a rival in the mechanical world.

The principles of the safety valve for steam engines are not so new as they seem. Our human bodies carry with them the first automatic safety valves ever designed. There are upward of 2,500,000 of them. We call them by the common name of sweat glands. Each such little gland has a safety valve which lets off heat from the body when it gets beyond a safe temperature. We cannot stand a rise of more than 8 to 10 degrees of temperature and live. If therefore the 2,500,000 safety valves were closed for twenty-four hours, death would supervene.

Adam's apple was the first storage cistern ever built, and it works with automatic regularity through health and sickness. It is a most important organ of the body, although for centuries it was considered a superfluous attachment. It regulates the flow of blood between the heart and the brain. When it ceases to operate, somebody dies of apoplexy or a rush of blood to the brain. When the heart sends up too much blood to the head, the Adam's apple steps in to check the flow and store it up for future emergencies. If the heart is temporarily weakened or put out of good running order, the blood stored in this cistern is given up and sent to the brain. The perfect working of this little device is apparent when we consider how comparatively few die of rush of blood to the brain or from a deficiency of supply.

The eye has a score of small inventions worthy of recording, the ear nearly as many more and the vital organs an equal number. There is the liver with its quarantine station. Let any poisons enter our systems with food and they are immediately held up at this quarantine station and destroyed by a secret process. It is only when poisons enter in large quantities that the station cannot handle them.

But the stomach co-operates with the liver and intercepts some of the poisons. There are small machines there which manufacture minute quantities of hydrochloric acid from the salts eaten. This acid is made in exact proportion to the amount of food consumed and suffices to destroy the microbes which we swallow. But there is even a third quarantine station located in the mouth. Millions of microbes are destroyed in the mouth daily by the juices elaborated there for this very purpose. If it was not for these three quarantine stations working continuously night and day, we should be killed off by microbes within an hour after eating a meal.

In the ear there is a little device which might have been the original of our modern compressed air inventions. The delicate drum of the ear must have an equal pressure from the outside and inside to receive and transmit the sound vibrations. To make this possible the eustachian tube was devised. Its function is to regulate the air pressure inside the ear. Let it fail to work, and one becomes stone deaf.

In the bones of the head there are many little channels hollowed out which are called the semicircular canals. These canals are filled with fluid lymph. For centuries no one could understand their meaning. Some physicians considered them of no use. This tendency to belittle organs in the human body whose functions could not be explained has characterized more than one generation of savants. Now these peculiar semicircular canals are known to be wonderful little devices to assist us in keeping our balance. They act a good deal as the ballast does on a ship, or, more properly speaking, like the fluid in a spirit level. The brain keeps an eye on this spirit level and is made conscious of the body's relative position. The fluid flows back and forth in the canals, and when we get it at a dangerous angle the brain knows it.—New York Tribune.

ROBUST DOUGH ROLLERS.

Work in a Pie Factory is on the Scale of Athletics.

To properly describe the processes of baking pumpkin pies would require one skilled in the technicalities of the art. This is the way it looks to a mere man: First, the coarse yellow rind is removed, and then the pumpkin is cut open and the seeds taken out, after which the two halves are thoroughly washed. Then a husky lad takes a sort of cleaver and cuts the pumpkin into large pieces, which are fed into a steam chopping machine and reduced to small fragments. These are placed in a huge copper boiler capable of holding perhaps twenty-five gallons. After the boiling has been completed a pasty mixture of eggs, milk, sugar, cinnamon and other spices and condiments is added and well stirred in, and then the yellow mass is ready to be filled into the skeleton pies. The crust is prepared in another department, where the dough is mixed, rolled and placed in the pans ready to receive the filling. If any one thinks that pie-making is an easy and effeminate employment he should visit a pie bakery and inspect the muscles developed on the arms of expert pie crust mixers and rollers. These would be creditable to a trained athlete and would put many a mail worker and blacksmith to the blush. Finally the pies are placed on racks and shoved into huge ovens that resemble nothing else so much as the kilns used for burning brick. These kilns are constructed in any size desired, with a capacity of anywhere from fifty up to several hundred at a time, while they can be refilled every half hour or less.

PECULIAR EYES.

The Organs of Sight of the Spider and the Snail.

The next time you catch a spider try to find the eight shiny little eyes at the anterior end, some above and some put under the edge of what we may imagine to be its forehead. To examine these parts to the best advantage hold the spider in tweezers, or it may be better to use a spider killed by being dropped into a bottle of diluted alcohol. These eight eyes vary in arrangement and in relative size in various species of spiders—in some they may be arranged in two rows, in other in three; some may be very small and others large and prominent, and so on—but there they are, rather poor eyes, near-sighted, looking in several directions at once, and the spider, which can never shut any of them, is sure to see everything that approaches unless it is asleep, in which case the sight is dead. For some purposes it may be convenient to have eyes that roll up and disappear at the approach of danger. And these are exactly what the snail has, situated at the end of two long and sensitive palpi, or feelers. When all is quiet their owner extends these organs, and you can see at their tips small round knobs upon which the eyes are placed. But if you touch one of the palpi or even jar the snail a little the eyes begin to back into these feelers as the tip of a glove finger may be turned in, and they no longer see any danger that may be lurking at hand.

Dangers of the Revenue Service.

The officers of the internal revenue service make little fuss over their accomplishments. The world scarcely hears of them unless they have had a desperate hand to hand fight with mountain desperadoes which has resulted in the death of several of their number. But day after day and night after night they go about their work calmly, quietly, in constant danger of death from a shot from some ambushed moonshiner or blockade. Yet these men are an absolute necessity for the safeguarding of the country's interests, and they deserve much credit for their hard task, scarcely appreciated by the great mass of the people.—David A. Gates in Metropolitan Magazine.

When the Wire Tires.

"Messages," said a telegraph operator, "always slide over the wires better on Monday than on any other day. The wires, you see, have profited by their Sunday rest. It is a fact that inanimate as well as animate things get tired and need a vacation occasionally. You know how true this is of razors, of automobiles, of locomotives, and it is just as true of telegraph wires. A wire after its Sunday rest gives a quicker, a fuller and a more delicate transmission. It is like a piano that has just been tuned."

His Horse's Finish.

"Dear me, cabby," said an old lady as she alighted from a four wheeler at Liverpool street station, "your horse's knees are bad."

"Don't you go and think it's because he's got into a silly 'abit of tryin' to stand on 'is 'ead in the street, ma'am, 'cos it ain't," was the reply. "That there 'oss is a serious thinkin' 'oss, 'e is, ma'am. A werry prayerful animal 'e is too. 'E's been prayin' this last six year as 'ow 'is pore old master 'e one o' these days come across a kind 'earted party what'll give 'im a copper or two over 'is bare fare, but, Lor' bless yer, ma'am," he added as he looked at the shilling the old lady had handed him, "it's losin' faith fast, and unless somethin' soon 'appens 'e'll die a bloomin' hinfidel."—London Tit-Bits.

Solitaire.

"Do you think the country is safe?" "Certainly," answered Mr. Dustin Stux. "We big investors are drawing dividends that make it incumbent on us to insure the country as thoroughly as possible."—Washington Star.

Teeth of Chambermaids.

Have you ever noticed that every chambermaid who has been taking care of the bay and feathers for a number of years is usually devoid of a few teeth of the upper "case"? Veteran chambermaids can seldom show a full set of upper teeth. The absence of the ivories is explained as follows by a downtown dentist: "The teeth of the maids which I replace with artificial ones are pillowcase teeth. They are constantly used in putting on pillowcases and are not strong enough to stand the strain. Their work is a constant wear and tear on the teeth."

Her Sponge Cake.

A young bride, after serving to her husband a Sunday dinner that was so, so, said as the mince pie was brought on, "I intended, dear, to have some sponge cake, too, but it has been a total failure." "How was that?" the husband asked in a disappointed tone, for he was fond of sponge cake. "The druggist," she explained, "sent me the wrong kind of sponges."

Irving's Uphill Fight.

When Irving first appeared in a certain midland town critics declared that his curious mannerisms of voice, gait and gesture destroyed his chances of becoming a great actor. How Irving confounded his critics by creating triumph after triumph and redeeming the English stage from the charge of mediocrity is now a matter of history. This great Shakespearean actor rose from the ranks to the head of his profession by sheer force of his histrionic power, ability and originality. And withal he was one of the most kindly of men, generous to a fault when the distress and troubles of others came under his notice.—London Mail.

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Nos. 1 and 2 are sold in Fredericton by all Druggists.

Wood's Phosphodine.

The Great English Remedy. Tones and invigorates the whole nervous system, makes new blood in old veins. Cures Nervous Debility, Mental and Brain Worries, Dependence, Sexual Weakness, Emaciation, Spasmodic, and Effects of Abuse or Excesses. Price \$1 per box, six for \$5. One will please, six will cure. Sold by all druggists or mailed in plain pkg. on receipt of price. New pamphlet mailed free. The Wood Medicine Co., Toronto, Ont.

Wood's Phosphodine is sold in Fredericton by all Druggists.

Where Courage is Needed.

The Temiskaming Herald laments the cowardice of some of its fellow citizens whose action injures the town in this wise: "There are in the Town of New Liskeard no less than a full half dozen silk hats—fall toppers, whose opulent size and silky sheen would give this struggling municipality an appearance of prosperity, second only to automobiles and asphalt pavements. It is in the interests of the town that such an impression should be made. Let the idea go forth that they who settled here are well-to-do, and what is now a town would soon be incorporated as a city. What a mighty thing is front and what more well fed in appearance than a silk hat. The man who can use a stove-pipe for a lid is certainly above the mere subsistence line. It may at least be said that he has not pawned his surplus belongings. What more suggestive of the capitalist. With silk hats walking about of a Sunday morning, vying with the sun in glory, Liskeard would take her place among the established centres of the earth. Beneath the ordinary Christy she sinks to the common place of a country town."

Contentment.
In summer, when 'tis very warm
And all the folks complaining go,
It's then I like the winter time.
Brave winter with its ice and snow.

And when the blustering blizzards rave
And it is cold as cold can be
The very hottest summer day
Is not one whit too warm for me.

In spring I like the bracing fall.
In autumn love the gentle spring.
So, you see, the whole year round
I'm satisfied with everything.

Economy in the use of machine oil
and axle grease means prodigality in horseflesh.

HEALTH AND BEAUTY.
Wash the hair every night into four or five strands, and it will make the hair appear softer and thicker as well as naturally wavy.

Remember that facial eruptions are caused usually by autoinfection; so keep the digestive organs active, bathe daily and drink plenty of water.

To develop the neck bathe it with warm water, then rub with olive oil, using a rotary motion. In the morning use cold water and rub with alcohol.

The Pale.
Little Margie (reading)—What is the "pale of civilization," Tommy? Small Tommy—Oh, some new brand of face powder, I suppose.

The root of all discontent is self love.
—Clarke.

A BAD COLD SETTLED ON THE LUNGS

All the most serious affections of the throat, the lungs, and the bronchial tubes, are, in the beginning, but coughs and colds, and failure to take hold at once and get rid of them will cause many years of suffering.

Dr. Wood's Norway Pine Syrup

contains all the lung healing virtues of the pine tree and will certainly cure all coughs and lung troubles.

Mrs. Jas. McDowell, Langton, Ont., writes: "In November, 1905, I caught a bad cold that settled on my lungs, so I got two bottles of Dr. Wood's Norway Pine Syrup, and used one and a half of them and by that time I was cured. I laid the balance of the bottle away for future use. A few days after our eight months' old baby took the whooping cough."

He was so bad we had to call the family physician, but he said he could do but little. I commenced using the Dr. Wood's Norway Pine Syrup and to my great satisfaction the baby was cured. I only used four 25 cent bottles; a small doctor bill.

I believe there is no other remedy for coughs, colds, etc.
Price 25 cents a bottle at all dealers.

Price 25 cents a bottle at all dealers.

Where Patience Ended.

"Haw, haw, haw! Good joke! Why will New York's fifty story building be fifty-one when it falls down?"
"I don't see."
"If it falls, that would be another story, wouldn't it? Haw, haw! Ouch!"—Philadelphia Ledger.

Because He Needs Them.

Jack (in restaurant)—What are you going to order, Algie?
Algie—Some calf bwains, for one thing.
Jack—Still trotting in the cannibal class, I see.—Detroit Tribune.

He Knew.



Father—Now, Bobbie, Bobbie! If you gobble your food like that, people will think you are a little glutton. Do you know what a little glutton is?
Bobbie—I s'pose it's the little boy of—of—a b-b-b glutton.—Tattler.

Natural.

"She handed him a lemon."
"What did he do?"
"Drank it. It was mixed with sugar and water."—Cleveland Plain Dealer.

Cistern water may be purified by charcoal put in a bag and hung in the water.

"The Blood is The Life."

Science has never gone beyond the above simple statement of scripture. But it has illuminated that statement and given it a meaning ever broadening with the increasing breadth of knowledge. When the blood is "bad" or impure it is not alone the body which suffers through disease. The brain is also clouded, the mind and judgement are affected, and many an evil deed or impure thought may be directly traced to the impurity of the blood. Foul, impure blood can be made pure by the use of Dr. Pierce's Golden Medical Discovery. It cures and purifies the blood, thereby curing pimples, blotches, eruptions and other cutaneous affections, as eczema, tetter, or salt-rheum, hives and other manifestations of impure blood.

In the cure of scrofulous swellings, enlarged glands, open eating ulcers, or old sores, the "Golden Medical Discovery" has performed the most marvelous cures. In cases of old sores, or open eating ulcers, it is well to apply to the open sores Dr. Pierce's All-Healing Salve, which possesses wonderful healing potency when used as an application to the sores in conjunction with the use of "Golden Medical Discovery" as a blood cleansing constitutional treatment. If your druggist don't happen to have the "All-Healing Salve" in stock, you can easily procure it by enclosing fifty-four cents in postage stamps to Dr. R. V. Pierce, 663 Main St., Buffalo, N. Y., and it will come to you by return post. Most druggists keep it as well as the "Golden Medical Discovery."

You can't afford to accept any medicine of unknown composition as a substitute for "Golden Medical Discovery," which is a medicine of known composition, having a complete list of ingredients in plain English on its bottle-wrapper, the same being attested as correct under oath. Dr. Pierce's Pleasant Pellets regulate and invigorate stomach, liver and bowels.

Cistern water may be purified by charcoal put in a bag and hung in the water.

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(INCORPORATED 1832.)

CAPITAL, - - \$3,000,000
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The external inspection of banks would tend to the greater security and stability of our Canadian Banking System is the contention of this bank, which is the only bank having its head office in Canada that submits its books and statements to strictly independent audit. Depositors should make a note of this.

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St. Mary's Branch. W. H. Robinson, Manager

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We are showing a Big Range of separate Trousers in endless variety of patterns all sorts of cloths, every pair is Tailor made. We fit any size of men. Our new reduced prices are from \$1.15, \$1.25, \$1.50, \$1.75, \$2.25 to \$4.00 per pair.

An extra pair of Trousers will help wearing out your Coat and Vest.

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Starts this Saturday the 16th, we will have some tempting Bargains for your Criticisms. Come and see us.

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