

EDISON THE MARVELOUS How Trainboy's Instinct Developed the Inventor. HIS START IN LIFE

Try Everything and Anything was His Motto—His Indomitable Activity and Continual "Monkeying Around" Has Been of Incalculable Benefit to All Mankind.

It there are vast possibilities in the little word, if Thomas Alva Edison had become a humorist, instead of an inventor, what a difference it would have made to the world.

Fortunately for the world the inquiring spirit of the boy gained the ascendancy over his jocose inclinations. He was forever asking his father the reason for this and that, and when, in very desperation and thinking frankness the better policy, the unhappy parent would answer "I don't know," the boy would reduce him to still further depths of distraction by instantly demanding, "Why don't you know?"

At the age of 14 he was candy-butcher, newspaper editor and electrical experimenter, all on board a train; by the time he was 18 he had become a "tramp" telegraph operator with a notable record for speed; at the age of 22 he was a full-fledged inventor, selling his stock-ticker for \$49,000—each sum he carried about with him for two days, afraid to entrust it to a bank.

Many stories are told of his



THOMAS A. EDISON.

Indomitable activity. While he was developing the automatic telegraph, he needed a solution which would give a chemically prepared paper upon which characters could be recorded at a speed greater than 200 words a minute. He ate at his desk and slept in his chair, until he had found the formula. Ultimately he succeeded in recording 3,100 words a minute.

The electric light, which followed his telephone experiments, afforded an even more striking illustration of this persistency in hunting for the thing. In this case it was a filament that would hold out to burn like the proverbial candle. He tried selenium and boron and a host of other materials. Finally he got some ordinary cotton thread and carbonized it. When it lit up he and his assistants watched it breathlessly for more than forty hours—would it last? It lasted and they saw that carbon was what they were after.

What kind of carbon was the next question. Trying various things, they at last carbonized a strip of bamboo from a Japanese fan and found they were on the right track. Even then Edison sent a schoolmaster to Sumatra and another fellow up the Amazon, while William H. Moore, one of his associates, went to Japan to get what was wanted. The search for a suitable filament for the electric lamp cost somewhere about \$100,000.

The human touch which characterized every achievement of the "Wizard," whom imaginative journalists pictured as dwelling in a cave of marvels more wonderful than any alchemist's retreat, is shown in the story of the first phonograph. The model had just been completed, and Carmen, the foreman of Edison's machine shop, unable to believe what he had been told, bet Edison a box of cigars that the thing wouldn't work. The inventor good-naturedly accepted the wager, and with a smile slowly turned the handle of the machine, speaking into the receiver the first verse of "Mary had a little lamb." Then the cylinder was turned back, and "faint but distinct, came back the words of that juvenile classic faithfully repeated in Edison's familiar tones."

PANAMA'S FIRST MACADAM.

Through Efforts of Canal Officials There Are Now Two Miles.

Across the Isthmus of Panama no road wide enough for a cart has existed in many a year, says C. Morton Dame in Good Roads. Pathways through the tropic jungle, trails broad enough to permit the passage of horse and rider, have served the purposes of those who had to go to places there which were not along the railroad or the river.

The first step toward the construction of a good road here was that of the Canal Zone officials. They have thrown open a public highway from Culebra to Empire City, a distance of two miles.

Before this was opened to traffic no way of going from one of these places to the other was open, except a mere path beside the railroad; and that was by no means easy.

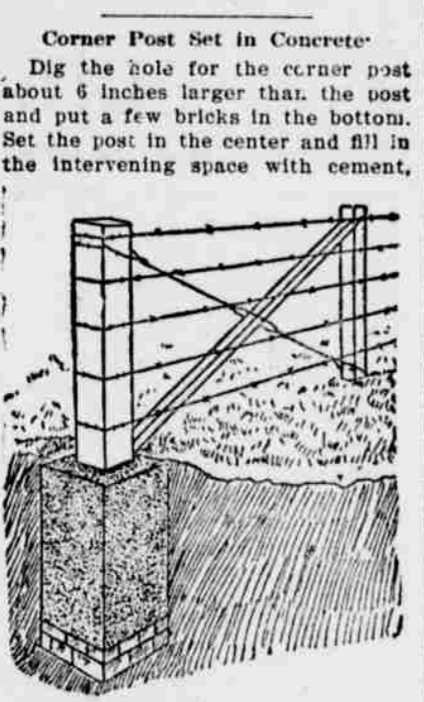
Much traffic has gone over this road since it was opened to the public. Some one has written that "this road is absolutely useless, except for pleasure riders." This is untrue. The road is a necessity. Among other uses, it affords the only way by which meat may be brought from the slaughter-house, which is beside the road. It will serve many other uses necessary to expeditious business here.

Feeding Cull Hogs to Hogs.

The hog will make a pound of gain on less food than almost any livestock and he is a great utilizer of farm waste; nevertheless, no man should attempt to raise hogs—as a business even in a small way—without adequate pasture. Experiments from Mississippi to Michigan are noted, in pasturing and feeding, including the use of alfalfa, rape clover, cowpeas, cullbeans, cornmeal etc. In connection with cull-bean feeding, it is suggested that salt is an appetizer and renders the food more palatable and it also possesses laxative qualities. For pen feeding, it is stated that it is best to have the water content of the ration below the daily requirement and then let the animal have access to water at will, or supply it regularly. For, if the food is exceedingly sloppy, the pig is compelled to consume unnaturally large quantities of the ration in order to satisfy his bodily needs. This distends the stomach, unbalances the whole digestive system, and makes a paunchy, ill formed animal, which at slaughtering time yields a very low per cent. of profitable carcass.

Corner Post Set in Concrete.

Dig the hole for the corner post about 6 inches larger than the post and put a few bricks in the bottom. Set the post in the center and fill in the intervening space with cement.



CORNER POST SET IN CONCRETE rounding it up well at the top. Let the post stand for a week before stretching wire. Such a post will be found to last longer and be more solid.

Lettuce During Winter.

It is but little trouble to have lettuce on any farm during the entire winter. I sow the seed thinly in the open ground early in the fall and when severe weather comes on transplant into cold frames, covering when very cold with glass, cloth or boards. The board frame should be banked up with earth and during real cold weather it is well to give an additional covering of straw mats or rough fodder. Those never having tried to grow lettuce in this way will be agreeably surprised to learn how little time and trouble it requires to give the family abundant supply of this wholesome relish. It is a much hardier plant than most people suppose.—Indiana Farmer.

Value of Breeds.

The value of breeds is greater than is known to some. Formerly it was considered necessary to keep a steer until 4 or 5 years old before sending to market, but with the use of improved breeds steers can now be marketed at 2 or 3 years of age, and will be heavier than those of twice that age that are not well bred. Good breeds save time and feed, increase the weight, and lead to higher prices.

Guard Against Field Mice.

Field mice do not attack old trees if they can get the bark of young trees, but they sometimes do much damage to orchards. Wrap the trees with tar paper, extending the paper several inches into the ground. This method not only prevents the depredations of mice, but also serves to protect against the borers. The paper need not extend over a foot above ground.

MANY QUEER NEWSPAPERS.

A Journal for Which the Subscription Price is Eight Ducks a Year.

In Switzerland there is a newspaper especially for engaged couples. Agents all over the country collect particulars concerning young people who have become engaged to be married, and their names addresses and particulars of their social position appear in the weekly journal.

Every girl who is thus mentioned receives the paper for one year free, says the London Tit-Bits, the subscribers to it being chiefly tradespeople who send advertisements of their goods to those whose names are so published.

Rheumatism being such a universal complaint it is hardly to be wondered at that there exists a paper entirely for the benefit of the rheumatic sufferers.

This is published in Germany, and in it rheumatic patients discuss their symptoms and tell of anything that has proved a relief to their pains, while medical men contribute articles to it on the different phases, symptoms and species, of rheumatism and the progress which the cure of rheumatism is steadily making. Needless to say, most rheumatic patients make a point of seeing this strange print.

There was staying in London recently the editor of the only illustrated paper in the whole of the Caucasus, who, therefore, is in the happy position of having no competitor. He is said to have made arrangements for the publishing of a world's miniature postcard newspaper, the print of which will be so small that the reader will be supplied with a magnifying glass in order to master the contents.

Greenland possesses one monthly journal called the Kalorikmit. It consists of a single sheet of three columns and is published at Godthaab, on the west coast of Greenland. Three months, subscription to the paper takes the peculiar form of two ducks. A sable skin will pay for the paper for a whole year.

America is the land of eccentric names for newspapers. Imagine yourself asking at the bookstall for the Crowbar or the Missing Link, or the Tar-heel, or the Buzz Saw, or the Arakansas Thomas Cat. These are actually the titles of newspapers in the States. Yet even these are hardly the worst, for among the list of papers in Alabama are the Hot Blast, Spot Cash and Wire Grass Siftings. The people of California are more or less proud of the Pomo-Tropic, the Buzz, and the Ojar, while Colorado has the Rattler.

Cows Horn is Useful.

Scientifically cow's horn is a combination of phosphate of lime, gelatin and albumen, and, like all nature's products, the ingredients are in the right proportions to make the article useful to man, as well as to the animal that bears it.

The lime makes the horn hard, but there is just enough lime to make it hard without making it brittle, and there is just enough gelatin to make the horn easy to cut and shape.

The core of the horn is bone and to get that out the horn is soaked in water for several weeks. When the core is taken out it is ground up and made into crucibles which are used for melting gold and silver in.

The outer end of the horn is hard and solid and that is used for making knife handles and other things. The hollow part of the horn is soaked for half an hour or so in boiling water, when it becomes soft and may easily be split with a knife.

It is then spread out flat and put between iron plates. There is a time when these horn plates are made very thin by hard pressure, and used in windows and lanterns as we now use glass. They may be made quite translucent.

When horn is heated it may be molded into almost any desired form. That is the way knife handles, buttons and other articles are made.—Chicago News.

Sins Against Our Eyes.

The first offense against the eyes is reading with a poor light. This requires the silly muscle to do extra work to sharpen sight. It applies to dim light, twilight, sitting too far from the light.

The second offense is one of posture—stooping or lying down congests the eye, besides requiring unnatural work of the eye muscles.

Reading on trains is our third offense, the motion causing such frequent changes of focus and position as to tax the muscles of accommodation as well as the muscles of fixation.

Reading without needed glasses or with badly fitted ones is the last. Eyestrain is certainly a factor in producing disease of every part of the eye. Old age is the time of retribution for those who have sinned against their eyes.—From Health.

A Fence of 2,036 Miles.

After five years' work Australia's great trans-continental rabbit proof fence has been completed. Its length is 2,036 miles, and the cost of erection has been nearly \$250,000. It is furnished at intervals of five miles with systems of traps, in which hundreds of rabbits are captured and destroyed daily. Inside the barrier their appears as yet no trace of their presence.—London Tit-Bits.

Why does it always seem to rain harder on a Sunday just before church time than on a Saturday just before the matinee time?

Poetry Worth Reading.

Under Voices.

Behold the rose—the peerless one, Sis laughing in the June day sun! Her kisses wide around she throws; So sweet and gracious her estate, All hearts on her with worship wait Eut hark! A murmur upward grows; It takes the wave of summer air, It gathers increase everywhere, And to the dim horizon flows; "We grass—we wild flowers of the plain, We lowly are, that thou mayst reign We are—that thou mayst be The Rose!"

Now, while this legionary sound The leafy commonwealth flowed round An Under Voice, in kindred tones, Was borne from out Life's garden close. From hearts unnumbered it arose; From spirit unto spirit blown, Sarty imperious it came, Deking the Great in deed and fame; "We win no trophies, moust no throne; But foll your gifts, your valor bright; We are the Dark; ye are the Light— We are—that ye may shine alone!"

Craftsman of Song—who'er thou art— The Under Voice beats on thy heart. Crying: "No truth that thou mayst bring Divinely to our waiting ears. (Whether it be full joy or tears) To us can come an alien thing By our humanity impelled. Thy thought to utterance is swell'd, As draws the river from its spring; We, though an unregarded throng, Are still thy fostering source of song— And we are mute that thou mayst sing!"

EDITH M. THOMAS.

The Poet's Pleasantry.

You man of shreds and patches, needle, thread, Won't you, please, come another day? These darning visits drive me off my head; Reflect—did you e'er know a poet pay?

Why bother me, you butcher, grocer—why? The age of miracles is long since o'er. Can dollars from an empty pocket fly? How many times I've told you: that before.

Pierian pebbles will not yield you blood— The Muse's mint is drained to its extent, And what I earn I spend on daily food. For even bards must have some nutriment.

You've other customers more prompt than I; I'm sure they'd pay if you made request; On them I think you might as well rely And let a hardworked poet have a rest.

Yet some good faith I'd really like to show By writing each of you a tripping rhyme. Which may—why, what's your hurry must you go? Good-by! I'll see you, p'r'aps, some other time!

LA TOUCHE HANCOCK.

Song of the Winds.

The winds—they come like hounds of the night, And they will not let me be; Whirling the leaves in their wayward flight, Sweeping the bill andlea. What of their song when the branches sway, Ere the night shades lift to the dusk of day; A ship is lost and a heart in vain Waits and hopes at the window pane, There by a cold, gray sea.

The winds—those trawling cogs of the night, Hark, hark to their whispering! They moan of a soul that has taken flight, And never a hope they bring. The lights of the night gleam cold, so cold, Over the hills and the upland wold— And yonder a night bird, lonely, grieves For you out there 'neath the sod and leaves—

And thus do the night winds sing! Milwaukee Sentinel

A False Promise.

(When the web is on the grass No rain can come to pass. —Old saying.)

"I'll put my umbrella by, My rubbers fling away; Though somewhat dubious is the sky, It cannot rain to-day."

She wore her very daintiest gown, Her filmy hat was white; Within an hour the floods came down— Alack, the piteous sight!

Oh, all the jewelled webs were out By trusting elfins spun; And shall the little people doubt The fealty of the sun? ADA FOSTER MURRAY.

CASTORIA

The Kind You Have Always Bought, and which has been in use for over 30 years, has borne the signature of and has been made under his personal supervision since its infancy. Allow no one to deceive you in this. All Counterfeits, Imitations and "Just-as-good" are but Experiments that trifle with and endanger the health of Infants and Children—Experience against Experiment.

What is CASTORIA

Castoria is a harmless substitute for Castor Oil, Paregoric, Drops and Soothing Syrups. It is Pleasant. It contains neither Opium, Morphine nor other Narcotic substance. Its age is its guarantee. It destroys Worms and allays Feverishness. It cures Diarrhoea and Wind Colic. It relieves Teething Troubles, cures Constipation and Flatulency. It assimilates the Food, regulates the Stomach and Bowels, giving healthy and natural sleep. The Children's Panacea—The Mother's Friend.

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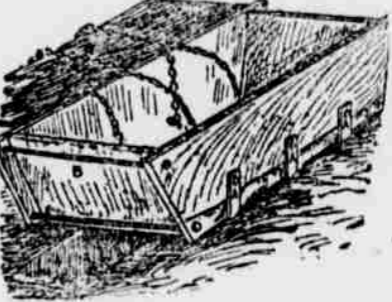
The Kind You Have Always Bought In Use For Over 30 Years.

THE CENTAUR COMPANY, 37 MURRAY STREET, NEW YORK CITY.

VAT FOR SCALDING HOGS.

Its Simplicity of Construction Recommends it For Use.

A very good vat for heating water or scalding hogs can be made in the following manner: Take two 2x12 planks and cut them so they are 6 feet on one edge and 5 feet 2 inches on the other edge. These



VAT FOR HOGS.

form the sides of the vat. For the ends take two pieces of 2x12 each plank 3 feet long. About three inches from each end of the two sides cut a groove across 2 inch wide and 1/4 inches deep for the end of the sides to fit. Holes should be bored at top and bottom for half inch bolts across the ends to hold the sides in position.

The bottom of the vat is made of sheet iron nailed to the bottom and on to the vat. The vat should be long fasten at top and, also, should be wide enough to come around both ends and enough to come up the sides for two or three inches. Three lines 1 1/2 inches thick and one inch wide are passed under the tank and used to support the bottom. They are shown at A. A. A. These should come up at least four inches at the side.

A trench 8 feet long, 20 inches wide, 15 inches deep, should be dug and the vat placed over it. The trench should be dug so that the wind has a straight draft under the vat. Fill the vat two-thirds full of water. The scraping bench should be set against the side of the vat.

Light chains each about 8 feet long are used to lower and raise the hog into the water. These chains should be fastened at the edge of the scraping bench and should be placed about 2 feet 6 inches apart. By placing these chains above the vat the hog can be lowered into the water and when scalded can be readily removed.—Prairie Farmer.

Growing Bacon Hogs.

Clover pasture greatly reduces the cost of feed, and stimulates a greater growth and vigor in the pigs than it is possible to secure in confinement. The pigs should for profit come in early spring and disposed of in November. At seven months they can be made to weigh between 150 and 200 pounds. Only breeding stock should be kept through the winter.

A bacon breed should be kept in preference to a lard breed for the reason that in the absence of corn a first class lard hog cannot be produced, while the feed that produces the choicest bacon can be grown in abundance—barley, peas, clover, roots etc.

The large Improved Yorkshire are kept on the experiment farm. They are much more prolific than the lard breeds and take better to pasture.

In Canada this breed predominates and the bacon pork exported from that country is noted for its high quality.—Idaho Experiment Station.

Lincoln's Orderly Mind.

Lincoln's mind was orderly, though his methods were not. He neglected details because his thought, which was "as direct as flight," passed instantly to the vital spot, and all else seemed unimportant. "If I can free this case from technicalities and get it properly swung to the jury I'll win it," he used to say; and this was his mental attitude toward all legal questions. He had no training in technicalities as long as the firm of Stuart & Lincoln lasted, and it is doubtful if any teaching would have qualified him for attorney work or made him a master of detail. Yet as an office lawyer, such as rules the destinies of our modern corporate interests, he probably would have been invaluable. His mind comprehended large subjects without the slightest effort. Once concentrated on an issue he passed directly to the point, disregarding the thousand and one contingencies, all the academic pros and cons and reduced the problem to its simplest possible form.—Century Magazine

The Watchword of Women.

Modesty is woman's watchword. Whatever threatens her delicate sense of modesty, frightens her. For this reason many a woman permits diseases of the delicate womanly organs to become aggravated because she cannot bring herself to submit to the ordeal of unpleasant questioning, offensive examinations, and obnoxious local treatments, which some physicians find necessary. Doubtless thousands of the women who have taken advantage of Dr. Pierce's offer of free consultation by letter, have been led to do so by the escape thus offered from a treatment repugnant to modesty. Any sick woman may write to Dr. Pierce, Buffalo, N. Y., in perfect confidence; all letters being treated as strictly private and sacredly confidential, and all answers being sent in plain envelopes with no advertising or other printing upon them. Dr. Pierce's Favorite Prescription has been long hailed as a "God send to women." It makes weak women strong and sick women well. "Favorite Prescription" contains no alcohol. All its ingredients printed on every bottle wrapper.

Borrowwell—"Bjones is what I would call a fair-weather friend." Wigwag—"Ah, he has sense enough not to lend you his umbrella, eh?"

ALL THE GOOD QUALITIES of Ely's Cream Balm, solid, are found in Liquid Cream Balm, which is intended for use in atomizers. That it is a wonderful remedy for Nasal Catarrh is proved by an ever-increasing mass of testimony. It does not dry out nor rasp the tender air-passages. It allays the inflammation and goes straight to the root of the disease. Obstinate old cases have yielded in a few weeks. All druggists, 75c, including spraying tube, or mailed by Ely Bros., 56 Warren Street, New York.

Rollingstone Nomos—"Me old teacher user tell me dat a foo' an' his money was soon parted." Tatterton Torn—"Gee! I wish I could be foolish about ten cents' worth just at dis minute."

Advertisement for Ely's Cream Balm and other remedies, including a circular for "HAY FEVER" and "CATARRH".