



THOMAS A. EDISON.

Thomas A. Edison is 60 years old, and to the world and to the workers who are striving for the opening of even vaster fields of invention and industry, he declares that before he dies he expects to see locomotives cross the continent using only a few pounds of coal for fuel, to see giant steamships driven across the Atlantic at high speed by a shovelful of coal, and to see the problem of aerial navigation solved.

One does not have to be old to recall the first electric light, or the first telephone. Less than a quarter of a century ago the electric light was so much of a curiosity that one of the biggest circuses in the country made it the feature of the show. It was not, as might be supposed, used to illuminate the "mammoth pavilion." The circus simply carried a portable engine and dynamo and had one solitary light upon a pole to be beheld in awe and wonderment by the great American public.

Since the electric light has become so common that it is at times found in what was only a few years ago the back woods, the younger generation, who have been used to it from infancy, scarcely will be able to realize what a marvel it was to those who, after hearing their grandparents talk of the "tallow dip," and who considered ginsight something that could not be improved, found themselves beneath the dazzling rays of Mr. Edison's wonderful invention.

The career of Thomas Alva Edison has been a most interesting one and should be an inspiration to every ambitious boy, regardless of the fact that in his youth he devoted his time to making electrical discoveries instead of killing Indians or being a pirate. His boyhood was not without the instances that go to make the life of a boy or young man interesting. As "train boy," printer, telegrapher—and in a few other lines—he had experiences that might have furnished material for many a writer of stories such as would interest the properly constituted boy.

He has done more than any modern American to place the land of his birth among the nations which lead the scientific world. He ranks with Roentgen, Koch, Haeckel and others of that class. Indeed, it may be said that he leads the class. And he is still as deeply interested in the quest for new truths about electricity and other sciences as he was half a century ago.

When such a man speaks it is with the wisdom of the oracle. So we may listen with attention as well as faith. Whether it is a prophecy as to the future or advice based upon the experiences of the past, what he says is entitled to consideration.

As to the possibilities of the future the wizard says: "It is only a question of time when it will be possible to run an express train from New York to Buffalo with the power generated from two bushels of coal." "It is only a question of time when all the electric plants will be established where the coal comes out of the ground. The power will be transmitted by wire—which will be much easier and cheaper than transporting coal by railroad."

"I expect to see ships cross the Atlantic in three days before I die; and I also expect to see a successful airship." Mr. Edison did a rare thing in celebration of his birthday. He allowed himself to be interviewed.

"Now," he laughed, "I feel at home. But what is it you want me to say?" "Do you expect to make any special announcement on your birthday?" was ventured.

"Everything depends—depends on how certain problems pan out. It would give me all the pleasure imaginable to make an announcement every day in the year, but it is mere foolishness to express hopes when all the world wants or is concerned in are results."

"It is true that you are in hope of solving the problem of perpetual motion?" "Absurd! absurd! Perpetual motion to science and the discovery of the north pole to the world bear what we might call corresponding relations. When some scientist finds time hanging heavy on his hands he may turn attention to perpetual motion. But meanwhile there are far more vital and immediate discoveries to be made."

"The control of the energy stored in coal, directly and without waste, for example, is it a possibility? Yes, it is not only possible but probable of discovery. Some day soon it will be done." "Ninety per cent of the energy stored in coal now is lost. That is a tremendous waste. It goes off in heat from the chimneys, and especially is wasted in the process of converting water into steam. If, therefore, a means can be devised by which this enormous waste is saved, it will revolutionize and vastly cheapen the production of power. The result will have an incalculable influence upon the material progress of civilization. It will enable an ocean liner of, say, 20,000 horse power, to cross the Atlantic in unprecedented time with an expenditure of about one-tenth the amount of fuel now required—250 tons instead of 3,000 tons. It will enable an engine to draw an express train from New York to Buffalo on a two bushel consumption of coal. Coal will be put in a receptacle, agencies applied for developing its energies with an inappreciable wastage, and through these agencies electric power of any necessary degree will be forthcoming. Yes, it can and soon will be done; some of the details are already mastered, practically. That problem seems to hold the greatest promise, to my way of thinking. What's that you are saying? What will follow a victory in that direction?"

"Do you think one of the scientific triumphs of the near future will be discovered at the end of the wireless telegraph—by the establishment of communications—with Mars or other neighboring planets?" was the interrupting query.

"There, there," expostulated the wizard, "you are getting over my head. My province goes as high as the top of Mount Everest. When you get above that you must consult others."

WIT OF THE YOUNGSTERS.

Teacher—Elmer, can you tell me what the largest diamond in the world is called? Elmer—Yes, ma'am. The ace.

Teacher—Johnny, can you tell me what a hypocrite is? Johnny—Yes, ma'am. It's a boy what comes to school with a smile on his face.

Mamma—But, dear, the good book tells us to love our neighbors as ourselves. Little Ethel—Yes, mamma, but people didn't live in flats then.

Mamma—Are you asleep, Bobby? Bobby—Why do you ask, mamma? Mamma—Because if you are awake you must take your medicine. Bobby—Oh, I'm asleep.

Small Tommy—The teacher wanted to box my ears this morning, Grandma—How do you know he did? Small Tommy—'Cause he wouldn't have boxed 'em if he hadn't wanted to.

Some one asked Gale, aged nine what she wanted for Christmas. "Nothing," replied Gale, "because I don't like anything but dolls and I've got two or three of them, and another one would just be another child to sew for."

Office Boy—Boo-oo! Boo-oo-oo! The boss—What's the matter, Jimmie? Office Boy—My granddaddy's dead. The boss—Well, don't cry. We've all got to die sometime. Office Boy—But she's goin' to be buried on a holiday.

"Mamma," said little Elsie as she looked up from her book of Bible stories, "I don't believe Solomon was as rich as people think." "Why not, my dear?" asked her mother. "Because," replied the small investigator, "this book says he slept with his fathers," and if he was so awfully rich I guess he would have had a bed of his own."

HEAT WOULD HAVE ATTEMPTED AT SUICIDE.

Its Real Efforts to Drown Itself in a Bucket of Water.

Do animals ever commit suicide? The point is raised by a correspondent who vouches for the following facts: "A small tabby cat in our possession recently developed an affection of the eyes, which evidently caused it great pain. We did what we could for the cat, which is a great favorite with the junior members of the family. Pussy's eyes, however, continued to give her trouble, and she wandered about the house in a peevish, irritable frame of mind, rejecting all affectionate overtures. One day last week one of the maids laid a pull of water at the foot of some steps leading to the garden. Two members of the family saw pussy deliberately walk down the steps straight into the bucket, and to all appearances calmly resign herself to drowning. She was rescued, dried and set in her basket by the fire-side, and set to warm back to a more reasonable view of life."

"So long as a watch was kept upon her pussy stayed by the fire. The moment it was relaxed she again walked into the bucket of water, which was still in its original position. This time the cat would certainly have drowned had she not been observed in time. The fact that she deliberately went twice to the water would seem to indicate that even tables can tire of life and wish to put an end to an existence which has become more of a burden than a pleasure."

London Mail.

FAMILIAR.

A large touring automobile containing a man and his wife in a narrow road met a hay wagon fully loaded. The woman declared that the farmer must back out, but her husband contended that she was unreasonable.

"But you can't back the automobile so far," she said, "and I don't intend to move for anybody. He should have seen us."

The husband pointed out that this was impossible, owing to an abrupt turn in the road.

"I don't care," she insisted. "I won't move if we have to say here all night." The man in the automobile was starting to argue the matter when the farmer, who had been sitting quietly on the hay, interrupted.

"Never mind, sir," he exclaimed. "I'll try to back out. I've got one just like her at home."—Philadelphia Ledger.

THE VOICE OF PRUDENCE.

Robert—old and black, and of no superfluous courage—had allowed his master's fiery thoroughbred to get away from him at the stable door, and go careering off across country.

"What was the trouble, Robert?" asked his master. "Were you afraid of Dixey?"

Robert shuffled his feet mutinously, and muttered something under his breath.

"Fraid? Ole Robert 'fraid? No, sah, I ain't 'fraid er ary a boss eber foaled," he replied, with great dignity. "But 'wen er hoes 'gin ter ramp round 'em pull at de rope, sum'n 'im keep 'a-wisperin', 'Tuh 'im loose! 'Tuh 'im loose! 'Tuh 'im loose!"

NOT FOR STRANGERS.

"What in the world does that mean?" asked the traveler through a sparsely settled region on the Cape. "There's no such place on my road-map."

The man whom he addressed first took a leisurely survey of the traveler and his horse, and then turned his eyes toward the weather-beaten sign which bore the single word, "TOL-EM!"

"That isn't a name," he said, with dignity; "it's just an indication. It means, 'To Long Pond one mile.'"

BUILDING THE HIGHEST DAM IN THE WORLD.



Situated in a narrow ravine on the south fork of the South Platte river, 48 miles from Denver, is the highest dam on earth, known as the Cheesman dam. Its wall of solid masonry is 221 feet high, impounding more than 30,000,000 gallons of water. From an engineering viewpoint, its nearest rival is the famous Croton dam that impounds New York city's water supply. This contains more masonry and cost more money, but it does not hold as much water, and its construction was not attended with so many or so great engineering difficulties.

It almost seems as though Nature itself had intended the site of Cheesman dam to some day be utilized as a great reservoir. The canon of the South Platte river at this point is not more than 35 feet wide at the bottom, and the sides are almost vertical for nearly 100 feet. At this point the canon begins to widen, so that 200 feet above the bottom it is 900 feet wide, and 220 feet above the bottom its width is about 700 feet. From the bottom of the canon to the summit of the dam the side walls are of solid granite. Before the masonry was laid, the loose boulders, rocks and debris were removed. This work developed the fact that while the bottom contained pot holes, and the sides many irregularities, yet there were no seams nor crevices.

The dam was constructed of granite rubble masonry laid in Portland cement mortar, with the exception of the upstream face, which is of rough-poled granite ashlar. For the downstream face, granite blocks of moderate size are used, making it one of the most handsome reservoirs to be seen anywhere—as well as one that should last almost as long as the eternal hills. To the beauty of this work of man, are added the glories of the Rockies—towering mountains rising in the distance capped with everlasting snow, whispering pines, rugged boulders and sapphire skies. The width of the dam on top is 18 feet, with a 14-foot roadway. At the bottom it is 176 feet wide. The elevation of the top of the parapet walls above the sea is 9,865 feet.

The primary object of the city engineering work is to supply water to Denver with water. Incidentally water is supplied to the irrigation of several thousand acres of land in the lower part of the South Platte river. The artificial lake created by the Cheesman dam covers an area of 84 acres, extending up South Fork valley five miles, up Goose creek two miles, and up Turkey creek one mile and a half. This reservoir is filled with the melted snows of the Rocky Mountains, furnishing probably the purest water enjoyed by any large city in the world. So capacious is the reservoir that the water always in storage would suffice for the 200,000 inhabitants of Denver and its suburbs for five years.—Williamsport (Pa.) Grit.

Science AND INVENTION.

There will be five floors of stockrooms around the outer walls of the building and eight floors in the center of the building, immediately above the stockrooms. On the outer sides will be the administrative offices. The entire building will be fire-proof and will contain elaborate fire-fighting and fire-preventing apparatus, with electric signals connecting with the fire departments. The floors of the stockrooms will be of glass in metal frames, and the book presses will all be of metal. Electric book lifts and passenger elevators will be installed. Electricity will be used throughout for lighting. The system of heating will be steam, with the blower rooms for ventilation. Paintings and statues will adorn a number of the rooms in the building.

NO MORE CIVIL WAR VETERANS.

New Element to the Front in Uncle Sam's Military Service.

The appointment of Brigadier General J. Franklin Bell as chief-of-staff of the army marks a new era in our military service. Never again will a civil war veteran hold the position; it marks the end of the old corps of officers. The last veteran to retire will be General Arthur McArthur, in 1909, but he will not become chief-of-staff. If General Bell is allowed to complete his service in that most responsible position it will be 1920 before another general has a show. This most startling change in personnel probably presages a change in army methods as well. That group of officers that passed through long and complicated campaigns had their own ideas about military affairs. The new leaders of the army must of necessity be theorists,



BRIG. GEN. J. FRANKLIN BELL.

by far the largest college building of his kind in the world and the largest and most complete library in the United States with the exception of the Congressional Library at Washington. It will be built on the south edge of the campus, facing south on the Midway plaisance, and will be flanked by the modern language building on the west and the history library on the east. These two buildings will probably be erected along with the Harper Library. The style of architecture will be Gothic, resembling the Parliament building in London. The great reading room of the library, which will be located on the top floor, will be 75 feet wide by 210 feet long and 40 feet high. The trusses in this room will be of traversed timber work, and the windows will be decorated in some way.

HARPER MEMORIAL LIBRARY.

Great College Building at Chicago to Be a Thing of Art.

Complete plans for the \$1,250,000 William Rainey Harper Memorial Library building have been accepted by the University of Chicago trustees, and the work of construction will begin in the near future. The structure will be



PROPOSED HARPER MEMORIAL LIBRARY.

because the Spanish war was hardly equal to an Apache raid for experience purposes, and there never will be another troublesome Indian campaign. General Bell was graduated from West Point in 1878, and spent much of his twenty years before the Spanish war as a cavalryman—from that to the executive head of the army in eight years is a marvelous advance—and he saw valuable service in the Philippines. The policy now is for a continuous administrative policy in the army, and General Bell represents all that is progressive in spirit, modern in organization, and a little bit ahead of the times in equipment. General Bell is no politician, is industrious and likable, and ought to elevate the plane of our land service.

Program and Programme.

The owl slipped and made a severe wound in my palate. He insisted on a second trial, declaring that he could not but succeed. But the only result was that he broke off a large piece of the tooth, and I had suffered sufficient agony to decline a third experiment.

Our boys and girls have noticed, of course, that the dropping of the "me" from the word "programme" is becoming more and more general. This is not so much in obedience to the demands of the so-called "phonetic reform," as it is a move towards uniformity in spelling words that have their termination "gram." The word comes regularly from the Greek "programme," and really should be "programme," but the advocates of the shorter form say that if we write "diagram," "telegram," "epigram," etc., we might as well write "program," especially as the final "me" is not sounded. But you should not fall into the incorrect pronunciation that many people are guilty of, and say "pro-gram;" the accent is on the first syllable, of course, but the "gram" is distinctly sounded like "am."

Brace Up. We all of us admire the erect, spry carriage, but we do know how easy it is to prevent becoming stooped and bowed long before age has laid its burden upon our shoulders?

For it is easy. When the first inclination comes upon us to stoop, we should throw back the shoulders, which will restore the body to its proper position. A good carriage adds more to one's attractiveness than does a pretty face, and is far more conducive to good health. One can appreciate the difference very quickly by placing one's self sideways in front of a mirror and allowing the back to curve forward, and then to straighten it slowly. Apparently ten years are taken from one's age with each such straightening.

ALL MILLIONAIRES.

Every Citizen of Greater New York Has a Right to the Title.

An assiduous and painstaking reader of the World writes to us from Buffalo to protest against the exuberance of reporters in "trying to make out that there are so many millionaires in New York." "We country people," he complains, "can swallow that they constitute a large multitude—anywhere from 20,000 to 50,000—but when it comes to crediting almost everybody to that class it goes beyond our containing capacity."

We regard this as a captious and ill-tempered criticism, which has its inspiration in a certain provincial ignorance of the manners and customs of New York, says the World of that city. In this city the term "millionaire" is a courtesy title which belongs to everybody who succeeds in escaping arrest on a charge of rascality. Even in those unfortunate cases the victim is entitled to the designation of "former millionaire."

Each section of the country has its own courtesy titles which custom and tradition confer. Just as every distinguished son of Kentucky has a right to the prefix "Colonel," so every citizen of Maine with pronounced views about the weather and the Constitution is a squire. In Indiana everybody is a judge, who has ever been a justice of the peace or a candidate for justice of the peace, or who has aspired to any other office of profit or trust. We once heard an Indian speak of Judge Beveridge. He meant Albert J., the only native-born American who ever succeeded in thinking imperially as Mr. Chamberlain would say.

In New York we are neither squires nor colonels nor judges, but millionaires. If we come from Pittsburg or have succeeded in dodging the taxes on our personal property we are millionaires. Those of us that ride on the ferries in going to and from our work are millionaire rascals. If we clerk in a cigar store that is suspected of having illicit relations with a pool-room we are millionaire brokers.

Reporters confer these titles freely and generously as part of the amenities of metropolitan existence, precisely as one member of Congress always refers to another member of Congress as the gentleman from such and such a State, whether he considers the aforesaid colleague a gentleman or not.

Measured by the sordid, materialistic standard of mere wealth, there may be only a few hundred or a few thousand citizens of New York who have accumulated \$1,000,000 in more or less tainted money. But this is a great city. It is not to be measured merely by the yardstick of the storekeeper or weighed merely in the bank balances of the money changer.

The Host Was Pleased.

"Edward Everett Hale," said a lawyer, "was one of the guests at a millionaire's dinner."

"The millionaire was a free spender, but he wanted full credit for every dollar put out."

"And, as the dinner progressed, he told his guests what the more expensive dishes had cost. He dwelt especially on the expense of the large and beautiful grapes, each bunch a foot long, each grape bigger than a plum. He told, down to a penny, what he had figured it out that the grapes had cost him apiece."

"The guests looked annoyed. They ate the expensive grapes charily. But Dr. Hale, smiling, extended his plate and said:

"Would you mind cutting me off about \$1.87 worth more, please?"—New York Tribune.

Wants Them All Himself.

"I see Grover Cleveland has been blaming the doctors for using big words."

"I always thought that man was a monopolist at heart."—Cleveland Plain Dealer.

The spot where a man plants his chair, when at home Sunday morning, is the spot his wife wants to sweep next, and this would be true if he took his chair and his newspaper on top the roof.

Every think that it is a form of conceit to grumble because you don't feel like yourself? Perhaps this not being the yourself is an improvement.

For the Children.

The Simple Life. I'd rather be a common kid With skates or sled, Than be a king'er vast domains, With crown on head.

I'd rather own a coasting hall Than sea and land; I'd rather be the captain bold Of a gay band.

Than ride in gorgeous chariots Bright with gold; I'd rather wave a baseball bat Than scepter hold.

I'd rather live the simple life, Chuck full of fun, Than be an emperor, or An emperor's son.

The Wrong Word. Bessie came in from school and sat down before her mother. There was a solemn expression on her face. Her mother looked down at her with a smile, waiting for her to speak.

"Is it right to tell things that you have heard at school?" she asked, some-what timidly.

"Not unless it can do some one good, and would not be telling another's secret," said her mother, quietly.

"O, this will do good, and it is about some one in our family, so it is our secret."

"About Bobbie, isn't it?" asked her mother, for mothers' hearts tell them more than their ears sometimes.

"Yes, the girls—the little girls down in Bobbie's room—say that some times he does not know anything!" declared Bessie, whose eyes were wide with her news. The last word had come out with strong emphasis.

"Why, I think he must have learned something," said her mother, smiling. "They say the teacher has a dreadful time with him, and makes him say the things over after her, and sometimes he seems to know them, and the very next day he doesn't."

"I will see when he comes in what it is all about," said mother.

Presently Bobbie came in from school. He had stayed again after the others, and his eyes were red from crying.

"Come here, Bobbie," said his mother. "I want to ask you about your school. Can't you learn your lessons?"

"I always know my lessons, but the teacher says I don't."

"Give me your book," said his mother. "Read this for me."

Bobbie read the little paragraph. He made no mistake, and his mother asked him to spell the words. This he did perfectly.

She looked inquiringly at Bessie, who sat proudly by. "It wasn't true," Bessie whispered.

"Why does your teacher say that you do not know your lesson?" asked his mother.

"Just because I don't know what a 'nasser' is. I haven't any at home. I never saw one."

Bobbie's lip was quivering and his eyes were filling with tears. "Every time she asks me to give her a nasser, I tell her I can't."

Mother took Bobbie up in her lap, and when she saw that Bessie was going to laugh, she sent her to look down the street for the postman, and then she said to Bobbie: "I see that you do know your lesson, just as nice as can be, but you have not known what the teacher meant. It isn't a nasser—it is an answer. When I say 'answer me,' you know what I mean, don't you?"

Bobbie's face was beginning to clear. "When she says 'Give me an answer,' she means tell her about the lesson."

"O, she asks me the lesson and I answer her," said Bobbie, in great wonder. "Why, to-morrow when she asks me I will tell her all the number work." And he did, for another meaning had been made plain to him, and another word was added to his short list—Youth's Companion.

The Arabian Dentist.

Sir Henry Layard, an eminent Oriental traveler, thus describes an interview with a native dentist in Arabia. "I had slept little, as I was suffering greatly from a toothache. The sheik declared that there was a skillful dentist in the encampment, and, as the night was almost unbearable, I made up my mind to put myself in his hands, and then endure it any longer. He accordingly sent for me. He was a singular Arab. His instruments consisted of a short knife or razor and a pair of forceps. He bade me sit down on the ground, and then took my hand and applied the awl to the tooth, and striking the sheik with all his might, he drove the awl through the tooth, and not to be seen again, he was gone from the scene."