How Edison Worked

Edison's method of laboratory work are described by one of his aids who was at the same time an intimate acquaintance from boyhood-John F. D'Hagan, in an article contributed to he New York Times.

Edison's definition of genius-that is "two-parts inspiration and ninetylight parts perspiration"—is well mown. It coincides fairly well with hat old definition—"an infinite capcity for taking pains," which is also amiliar. Although neither is acceptd whole-heartedly by psychologists, here is no doubt that Edison's abilty to work hard and long without espite on a problem was a principal; actor in his success.

This fact Mr. O'Hagan brings out in ils narrative. He writes:

"I find what the world needs, then go ahead and try to invent it.' This vas the answer of Thomas A. Edison nade years ago to a question from he late Dr. 'Charles W. Eliot, then resident of Harvard University.

"From the beginning of his first clentific quests in his little workshop Menlo Park, New Jersey, more han a half-century ago, Edison realzed the impossibility of carrying ut single-handed such enormous tasks s he had set for himself.

"Outside of a few basic principles, ittle was known of electrical phenmena, and only a minor part of this as demonstrable let alone utilitarian. Helium Keeps "Many of his pioneers had, like himelf, only the most meager education, ut they knew how to follow a single ne of research, and then followed trictly the course of written instrucions which Edison always insisted pon, to there would be no question to what had been his orders. This ne of experimental correspondence an epic in itself.

"Due to the fact that so many of is inventions were basic, Edison was ompelled to make universal experihents in practically all of the subects entering into the inventive child e was trying to raise to maturity.

"He studied the peculiar adaptabily of each assistant. He soon learn-I who was proficient in electricity hemistry, physics, of mechanics, and each was assigned the work for hich he was best adapted.

"'I always start by reading every hing available on a matter and its plated subjects before I start an exeriment,' Edison often said. "Then tep by step, by trial and error, I go nd that theory is wrong, until I have majority in my favor as far as a rive to complete the proposition."

'Inc-long sleepless vigils over testabes or in observation of a working art or a completed whole have long een known, remarks Mr. O'Hagan. every room or building in which speriments of any curation were to carried on, Edison would in the eginning select a spot where he ight snatch a few hours' sleep beveen labors. The narrator proceeds: "I remember one time during a t of extensive and expensive experients at his chemical works in Silver ake, New Jersey, that he could find place to 'cork off' other than on e top of an old roll-top desk.

"Barely two feet wide and not long hough for a full-length stretch, this as the only bed the 'Old Man' knew r weeks. He arose one night after. bout two hours' sleep and in the rkness quickly put on his hat, only jump with consternation and to row his hat against the wall as he it some creeping creatures on his ad. While he slept a family of mice d made their home in his hat.

"It was during these experiments at he developed a major industry in short period of time, even to erectg a complete set of buildings and nstructing special machinery to pply the American Government, and ter some of the Allies, to say nothg of American industries, with mucheded conitar products as a base for plosives and the dye industry.

d certain industries were threatenwith paralysis.

rried out by Mr. Edison.

When work on the X-ray was beconducted, Edison hit upon the a of the fluoroscope. Pictures of one's interior were not

Medicine and surgery would be th the naked eye the interior or-

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Mother deserves the BEST Give her a BEATTY.

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Also Can Heat or Cool Home Keep Flyers Warm and Aid Ill

When the British dirigible R-101 was destroyed by fire resulting in heavy loss of life because of the highly inflammable hydrogen, the cry again ing found for that strange gas. Helium, went up to make balloons safe by filling them only with helium. Helium is non-explosive but until recently its warm, preserve food, treat pulmonary price had been so high and the restrictions put on it by the American develop deep sea diving and caisson government, which controlled production, so severe, that use of it was al- and in the grading and grinding of most impossible for European bal- powdered materials It may even be

Now, however, with perfection of devices for separating this mysterious gas from other gases, a new day seems head proving this theory is right to be dawning for helium, says "The Milwaukee Journal." Starting experiments, which not only revolutionize gen, hellium was discovered in the orking whole is concerned. Then we the methods of obtaining helium but which find new practical uses for the gas, have just been made by scientists.



HIDES - FURS HIGHEST PRICES PAID

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For example, experimenters announced and Threlfall and Sir William Ramsay the other day that orange juice sealed turned to America they found a sufin helium was found to be as fresh at ficient supply at Dexter, Kan. The the end of six months as it had been circumstances that surrounded the disoriginally. Half a sponge cake was covery were quite amusing. The peoleft exposed to the atmosphere. At ple of Dexter looked forward to a the end of two months the cake in the great boom for their town when geolhelium was as moist and fresh as the ogists pointed out strong indications day it came from the oven. The other of petroleum. half of course was spoiled.

Helium Has Many Uses

These early experiments indicate: only a few of the many uses besides it has been demonstrated, can both heat and cool the home, keep flyers and blood diseases, aid metallurgy, work and be utilized in drying systems made available for electrical generators and transformers and in lighting and television.

This unusual gas has had an unusual career. Colorless and odorless, the lightest gas known except hydrosan in 1863. Twenty-six years later it was found on the earth by Sir William Ramsay. Sir William continued his work and demonstrated, in 1903, that helium was a product of the radioactive disintegration of radium.

ing an air raid on London early in the World War that led British scientists to make an effort to provide the allies with helium. One of the zeppelins defied every attempt with anti-aircraft guns to bring it down, Although others were destroyed. The British surmised that the Germans had equipped this impregnable zeppelin with helium.

land and France, but when the scien-

Gas Blows Out Flame

The test well brought in gas. I was decided to celebrate the good luck. A holiday was declared and a platform inflating dirigible airships, that are be- built from which the Mayor and other speakers were to hold forth. speeches rolled out in good style but there was a hitch when the gas was turned on and the Mayor tried to light it. Every time he applied a lighted match the gas blew it out.

It was concluded that the pressure was too strong, ro the pipe was extended and a bonfire used in an attempt to ignite it-but the gas would not burn. Great was the chagrin of the Mayor and th people of Denter who had been confident that fortune would spring from the hole they had drilled. Rival towns gave them the ha ha and made wisecracks about Dexter's "wonderful fire extinguisher."

But it turned out to be another case of he who laughs last laughs best. Professor H. B. Cady, of the University of Kansas, discovered that the gas contained the two inert elements, nitrogen and helium. Sir Richard It was an incident that occurred dur- Threlfall heard of this and sent his representatives to Kansas. They were so satisfied with what they found amid the wheat fields that they made

plans for an extraction plant. While this was not built, the United States, upon entering the war, at once prepared for the production of helium, spending millions in surveys, research and building containers for storing Small quantities were found in Eng- and transporting the gas. Before the war ended hundreds of steel containtists, under the direction of Sir Rich- ers of compressed helium were ready

for shipmont to France. Now a Great Industry

"Helium then became a great peace- first impression. time industry of the United States alone, for its deposits, found in the Texas Panhandle, near Amarillo, are far richer than anywhere else in the try. world, the gas assaying 1.75 per cent. helium. The two fields in Canada, one of genius. north of the Montana line, and the other in Ontario, produce helium of kind words than those that cut. but eight-tenths of 1 per cent.

\$1,700 a cubic foot. To-day it is so | 13. That it is easier to do good work cheap that it is used in toy balloons than poor, if you once learn howbe purified of the contaminating air while. ships. The six commercial airships in hold you down. service in the United Stataes are equipped with helium.

"Helium is hailed as a blessing to persons who have to work under con-selfishness thwarts body and mind. ditions of high artificial air pressure. | 18. That rules are necessary to a The new discovery enables deep sea business as laws are for right governdivers to descend to greater depths ment. and remain under water a much longer | 19. That you can't learn everything time. Tunnel workers will be able to in one day. labor under much higher air pressure."

SELF EXAMINATION Let not sleep fall upon thy eyes till thou hast thrice examined the transactions of the past day. Where have I turned aside from rectitude? What have I been doing? What have I left undone, which I ought to have done? Begin thus from the first act, and proceed; and in conclusion; at the ill which thou has done, be troubled, and rejoice for -Pythagoras. thes good.

Schoolboys Wear Overalls

Raleigh, N.C.-Twenty-five - male students of the Nashville, N.C., High School, recently appeared at school clad in neat blue overalls, made of cotton, and informed the principal, Professor Gray R. King, that it was their intention to carry on a campaign designed to stimulate the increased use of the South's staple. The boys urged the girls to join them in this movement, especially in the matter; of wearing cotton hosiery.



Ian S. Macpherson of Toronto, win ner of the Gold Medal in Toronto in 1930 as Champion Baby of Canada, returning from a vitit to the Old Land on board the 'Athenia".

Owl Laffs

Twenty Things To Remember 1. Remember that work is only a means character is the end.

2. That sincerity is the foundation of all honest work. 3. That you label your own work. 4. That only cowards are afraid to

5. That no one can hold you down you are determined to succeed.

6. That every man is destined to do something worth while. 7. That mosti people judge you by

S. That the only way to sell insurance is to see prospects.

9. That few men succeed tuntil they - 10. That hard work is no small part

11. That it takes no longer to say

12. That the only way to keep your "Fifteen years ago this gas cost credit good is by paying your debts.

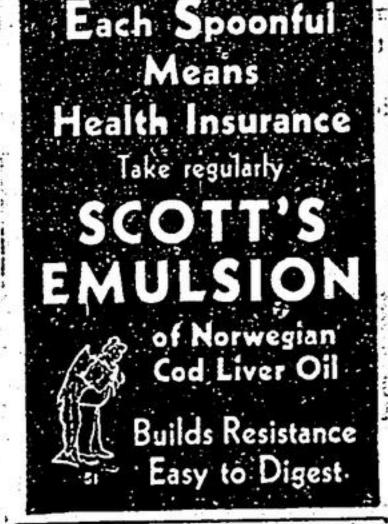
as well as dirigibles. Helium is used 14. That the more difficult things over and over again, as it easily can are to accomplish, the more worth

that seeps into the gas bags. The 15. That a sensible employer is more United States uses only helium air- anxious to push you ahead than to

16. That you are one link in a-great

17. That ambition develops, while

20. That times, progress and meth-



ISSUE No. 49—'3

Mrs. Nagger (to garbage man as she opens back door)-"Am I too late for

the garbage?" right in."

Neighbor ladies probably saw little Cleopatra. People with clean records above, state titles, size, condition, to H. often are targets for dirty remarks. There is only one more thing to be feared. Some men take their troubles to bed with them, but wise men sleep alone. The girl who shops around for a husband never knows what is in Store for her.

Joe-"He's a crook; he's wanted in Chicago.

Sam-"Why do they want any more crooks in Chicago?"

Gladys-"I'm a little dubious." Calvin-"Why don't you take something for it?"

The church-school lesson in the primary department was about Samson. After the teacher had described the great deeds of the man, to her small charges, she asked:

Teacher-"Now, where do you sup pose he got his great strength?" Little Fellow-"Oh, I guess he ate spinach."

She-"Where will you be stopping at when you get to Paris?" He-"Lady, when I get to Parls, I'll top at nothing

During the making of "Uncle Tom's Cabin," they naturally came to the where Simon Legree has to the tar out of Uncle Tom. Everything was ready, the lash lifted and about to fall when Uncle Tom let

out a yell. "Hold everything," he bellowed. forgot to put on the cork undershirt."

Willie-"Pa, what is excelsior?" Pa-"Long saw dust, son!"

The Kid-"Pop, how soon will I b old enough to do as I please?" The Old Man-"I don't know. Nobody has ever lived that long yet."

There would be many more thin humans in the world if it were half as much fun taking it off as it is putting it on. Half the world would like to know how to persuade the other half to let loose of its money. A man used to go to the golf club a great deal, coming home rather late. His wife became suspicious and went through his pockets one night, and found nothing but-a hole in one. The world is made up really of three classes, those who really try, those who half try and those who don't try at all.

Sea-water weighing one and a laid tons was recently brought from South America to London for analysis. It travelled the distance of 7,418 miles in glass bottle stowed in sixty packing cases.

Radios \$29.50

Battery operated, beautiful walnutspeakers, De Forest Crosleys, Westinghouse, Marconi, up-to-date, wonderful distance-getters, sweet tone, including tubes, speaker, instructions how to install and operate. Tested, well crated, express paid, bargain price \$29.50. Money back guarantee if not satisfactory.

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WHAT many people call indiges-tion very often means excess acid in the stomach. The stomach nerves have been over-stimulated. and food sours. The corrective is an alkali, which neutralizes the acids instantly. And the best alkali known to medical science is Phillips' Milk of Magnesia. One spoonful of this harmless

tasteless alkali in water neutralizes instantly many times that much acid, and the symptoms disappear at once. You will never use crude methods when once you learn the efficiency of this. Go, get a small bottle to try.

Be sure to get the genuine Phillips. Milk of Magnesia prescribed by physicians for 50 years in correcting excess acids. 50c a bottle—any drug store. (Made in Canada.)

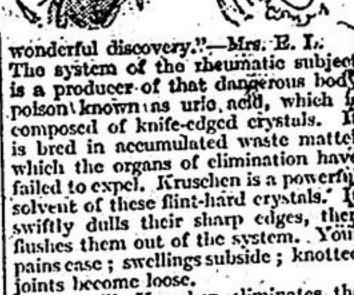
Held by Unseen Hands

LOCKED JOINTS THAT KRUSCHEN RELEASED

Unseen hands held this woman in her bed. They held her limbs and her joints, so that she was searcely able to move. They were the hands of the uric acid flend-and their grip became fighter and tighter.

She had almost despaired of ever loosening their hold -when she made what she describes as "a wonderful discovery."-Mrs. E. I. six months ago, following directions, failed to expel. Kruschen is a powerful and I am thankful to say in less than | solvent of these flint-hard crystals. It a week I was able to get a night's rest swiftly dulls their sharp edges, then and sleep. That was something I had flushes them out of the system. Your not had for a very long time. My pains case; swellings subside; knotted joints seemed completely locked and I could not turn in bed for pain. Now Better still, Kruschen climinates the and get about fine, and my joints seem | it keeps your liver and kidneys in to be quite different. It was one day perfect tune, so that these eliminating when I was reading in the newspaper organs free your inside from all poisons about Kruschen that I decided to try breeding waste products.

it. And now I shall never be without Kruschen Selts is obtainable at all



I'm able to sleep well, turn with ease, root cause of the evil. Taken regularly,

wonderful discovery." She found The system of the rheumatic subject Kruschen. Read how it helped her :- is a producer of that dangerous body "I have suffered terribly for a very poison known as urio, acid, which is long time with rheumatoid arthritis. composed of knife-edged crystals. It The pain I've suffered I cannot explain is bred in accumulated waste matter to you! I commenced taking Kruselien | which the organs of elimination have

it. I consider Kruschen is a very Drug Stores at 45c. and 75c. per bottle.

kept dry material, and said to his system.

table fluorescent salt of a combinaof the fluoroscope."



"A majority of these products had eviously been supplied by Germany, d certain industries were threatenmplete, and most profitable experients in a short period of time ever

Driven From the System Just By Drinking This

matism, Neuritis and "acid" complaints. Not a drug nor medicine, but a tropical plant called eatly assisted if doctors could study HERVEA. A beverage is made of the tiny leaf, No trouble or fuss, you make it in your own home; the RELIEF IS FELT AT ONCE, and becomes 'Little was known of the subject evident more and more every day. Hundreds of the time, and Edison, one morn- benefit and have sent me letters praising this wonin preparing for the long grind derful little plant. ward discovery, pointed to a whole will feel a different person. The reason is that it expels the urle acid poisons and PREVENTS NEW

TRIAL PACKAGE FREE

'Aylsworth, start up there at the Over in England, where so many people suffer with and work down. If there is a rheumatism, HERVEA has given such wonderful results that today every mail brings a sheat of letters asking for free trial packages, which are n of salt that will fluoresce, we will gladly sent by the importer of HERVEA. So many requests were received also from Canada, that a It. Stick at this and let me know Canadian depot has been established and the same Canadian depot has been established and the same of a trial package free is now made to every suffered was long after that that a group of a trial package free is now made to every suffered was long after that that a group of the canadian depot has been established and the same of the canadian depot has been established and t

distinguished medical men saw with to send you, through his Canadian representative. a naked eye for the first time ob- a trial package of this "ten" free. If you feel you ts through a solid substance. Mr. ther quantity at a small charge. From his own ison took a watch from one of the personal experience, he states that this "tea" is ctors and placed it in the centre plaint—and what it did for him in a few weeks it a large book, and later a cat was should do for you—if you will give it a fair trial. ced by Aylsworth in a closed box. Just send your name and address and you will reced by Aylsworth in a closed box. ceive, free of charge a trial package. ced by Ayisworth in a closed box. ceive, free of charge, a trial package of Herven is was the first public demonstra- "tea" for rheumatism. If you wish you may send four cents in stamps to help pay postage and distribution costs.



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