

The Beers-Home-Magazine-Page?

Renewal of Power in Dynamo

By GARRETT P. SERVISS.

"Will you kindly explain the philosoph of the renewal of power in the case of a ning dynamo? I am, of course, aware that the excitation of metals generates the potentiality, but

would like to have expinined where the ultimate reservoir is; whether it is constantly drawn from the earth, or air, or where,-F. D. C."

Here is a dofinition of a dynamo, taken from a text book, which will serve to put the nature of your more question clearly before the

mind of the average reader, who is prob ably famillar with the name "dynamo" out knowing just how the machine so called works:

"The dynamo is a machine for con-"The dynamo is a machine for con-variing mechanical energy into electrical of matter do imperceptibly. This process, by which infinitesimal particles called energy by means of electro-magnetic in-A dynamo does not create electricity but generates, or produces, an induced electromotive force which causes a current to flow through a properly in-sulated system of electrical conductors external to it. The amount of electricity obtainable from such a generator (the dynamo), is dependent upon the mechanical energy supplied."

For the sake of still greater clearness, should be added that the "electromo tive force" generated in the dyanmo is produced by keeping an electric conducfor in rapid motion across the field of action of a magnet. The same effect results if it is the magnet which moves while

the conductor remains at reat. To maintain the motion, mechanical pewar must, of course, be expended, and this fact is usually regarded as furnishng a sufficient explanation of the mystery of the origin of the electric current which flows from the dynamo. As in the definition guoted above, the maintenance definition quoted above, the maintenance field of the magnet, cutting across the latter's lines of force, is a transformation net plays in the phenomenon. You might which your conductor round by mechanical originating in the intra-atomic energy power until doomsday without getting a locked up in the magnet. sign of electricity if there were no mag-net at hand with its invisible "lines of the inexhaustible, but, of course, force." filling the space about it as they

torve round between its poles. It is the "outling" of these lines by the moving confloctor that gives rise to the sisciric current, and the wonder of it is that the magnet seems never to become weakened or exhausted. We see how we know up the mechanical power, but we do

not see how the magnet keeps up its supply of force undiminished. It restores fts "cut" lines continuously and instanously, or keeps their strength intact, in apite of the fact that energy is being onstantly taken from them. In fact, the magnet exhibits the same

mysterious property quite independent of its use in the dynamo. Take an ordinary har magnet, which is simply a piece of magnetized steel, and with it you can magnetize, by were touch, hundreds of other bars without apparently diminishing the original store of magnetism.

Perhaps the most interesting explanation of this mystery is that offered by Dr. Gustave Le Bon. He believes that the inexhaustible store from which the energy is drawn is to be found, in the heart of the atoms of matter. It is that marvelous thing called "intra-atomic" mergy, the demonstration of whose additions to human knowledge that has even been made. The energy shows itself in the bommbardment of almost infinitely minute projectiles which radium Indicates upon its surroundings.

What radium does conspi is no reason to think that all other kinds corpuscies are shot off from the atoms of material things, is named dissociation. The corpuscies may be, in effect, nothing more then moving electric charges, but we have here nothing to do with that. aspect of the question. What immedi-ately concerns us is the probable fact that all matter tends to turn, or to be transformed into a form or state which we know as energy. Here, then, is the source from which the dynamo draws its inexhaustible supply. This is the form in which Dr. Le Bon puts the axplanation

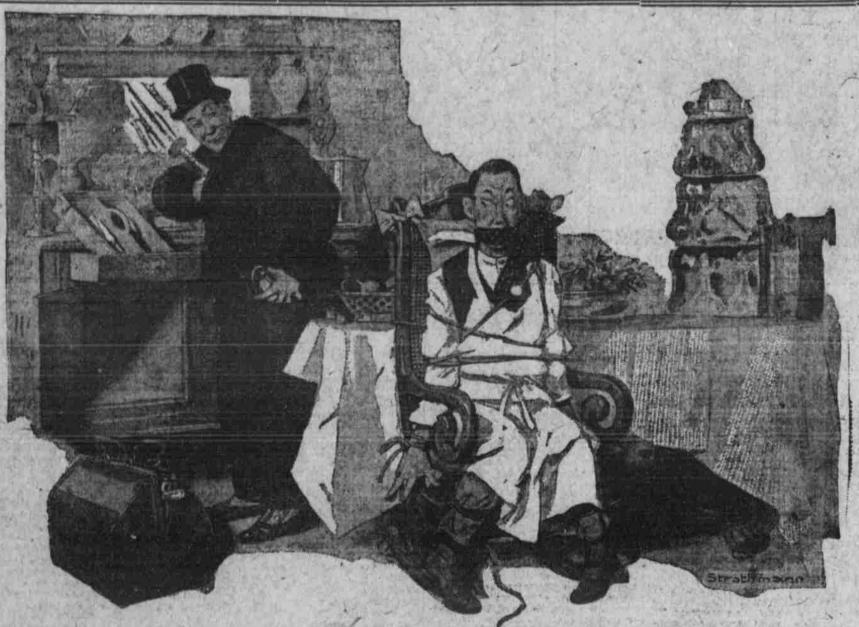
"When we see at work those signatio dynamos whence torrents of electric fluid flow, we should not say that they represent movement transformed into electricity. It is simply the intra-atomic energy of dissociated matter which ap-

If this explanation is correct, what accours when the electric conductor, or 'armature of a dyname revolves in the ical power expended. But this ex- of these lines of force into an electric mation ignores the part that the mag- current, and as fast as they are thus drawn off they are replaced by new ones

Dear Sir: My last recent departure were from job of employment at home of Mrs. and Mr. J. W. Casey, Landslide, Mo. Reason for this were wicked plumbing which were not my own. I tell you Location of this Casey home were restportraiture are everywhere containing whiskers and bathtubs can be found surrounded with wood to resumble giant's soffin. "This place are full of gweet asable giant's sociations," report Hon. Mrs. with ro-

"Togo and the Hon. Plumber"

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He gagg me to chair by my necktie while he continue on removal of art from sideboard. When this accomplished he scratch me in seat of my stummach with end of shooting revolver, then back out slyly as if less welcome

By WALLACE IRWIN.

To Editor "Good Housekeeping Maga-Bibs," who carry truth like gaspipe through every American home.



Kingdom of Dust

By ELBERT HUBBARD

In our Pullman the other day was a colored brother doing extra, dead-heading ome. He was ashy-yellow in hue, sad and ultramarine in spirit, immersed in

I sought to disen-252.70.70

tangle him from his melancholy. "Us is dyin' off fast," he remarked. And then he explained that he had been up to St. Paul to attend the funeral of his partner, who had died of tubercu-Ionis, "It's the dust in these yere kyars," he

And I said nothing,

naid.



because there was nothing to say. Dust is not only the bane of the palace car, but it is the bane

tage and temement alike To relieve the boune of du

to the length of days of its occupants. I have been reading a remarkable little book entitled. "The Kingdom of Durt." by Dr. J. Gordon Ogden, an eminent professor of physics and chemistry.

The Kingdom of Dust is the Kings of Death. In this book Dr. Ogden says: "Dust is the right hand of death."

Dr. Ogden then goes on to say:

"More than half of all deaths in world, from the equator to the poles, are due to the distribution and breathing in of dust."

Bacteria exists in all dust where human beings live, eat, sleep, move, work. Wherever we go, we are throwing off particles of animal matter.

Baoteria are a form of vegetation, so small, so minute, that 50,000 of these germs may sit on the edge of a knife blade along a line one fach in length. Some are visible under the microscope Others are so minute that the highest power of the microscope fails to find them. We only know that they exist

by watching their growth. They come out of the unseen and evolve until the microscope can detect them. Bucteria are divided into three classes;

the spherical, or cocci; the red-shaped, or bacilli, and the spiral.

These grow by fission. That is, they divide, and a piece so small that it can not be seen by the microscope sometimes breaks off and can be caught by the scientist on a "Petri Plate" or culture-bed, and evolved.

Bacteria are mostly of a septie order, and these are the cause of various diseases.» The best examples of septic dis-eases are pneumonia, tuberculosis and such contagious diseases as diptherin, scarlet fever, measles,

Dr. Ogden maintains that the diseases caused by bacteria are avoidable. The thing to do is to minimise dust.

Dust is everywhere, but the worst kind of dust is that which is confined within the four walls of a room. This dust is always germ-laden, because it is infeste with offete matter thrown off by human In the Boston City hespital, where the most rigid possible sanitary conditions prevail, bacteria are found to be 1,550 to the cubic foot of air. In Central park, New York, bacteria are found to the extent of 1,600 to every cubic foot. These conditions are not especially unsworable to life. But when you get up to 20,000 living germs to the cubic faot you are getting into danger, and this often happens in homes that are not properly swept and cleaned. The average house, where the rooms are only fairly ventilated and the housekeeping is indifferent, may have from 10,000 to 15,000 bacterin to the cubic foot. If we would be well we must device a plan by which the bacteria are not simply scattered through the room by sweeping and dusting, but by which they are picked up effectively, captured and stroyed.

Runaway June

Read it Here-See it at the Movies.

apedial arrangement for this paper a drama corresponding to the install-t of "Runaway June" may now be at the leading moving plotture the-By arrangement made with the al Film corroration it is not only the to read "Runaway June" each but also afterward to see moving res illustrating our story. Adight, Bill, by Sorial Publication Corrogation.)

tion.)

FOURTH EPISODE.

Poor Little Runsway June.

CHAPTER IL (Continued.)

"Mon Disu!" shrilled an excited wor by the decorative Frenchman. That ox-clud individual aurycycd Gilbert Blyc's ak black Vandyke and tweaked at his own and suddenly threw up both hands and began to laugh.

In that same memory Sneaky Tavis arms in at the door.

h-hun-huh-l" Snoaky informed hor, stranging for breath and pulling his arms out of the car. "I say, what do you want?" insisted

Sneaky poluted backward with his

"Your buh-buh-huh-hushand!" he hushed, suching in all the air in the car, "Daniell" And again he pointed backward with his toumb.

Hanoria Blye without a word grabbe har cut glass flower vase and cracked her expert detective on the knuckies. with a parting gasp'he dropped off back-

Where was June while so many people miere so busy about her? In a horse cab, with Marie and the clothes. far down war the East river, where, in full sight of all the barges and all the grins shipserrow that it should have had a weather rane to keep it headed into the wind. It was three stories high and blackened with age, but there were gerautums and a cheerful light in the downstatrs front indows. This was where the elevato toy's mother lived, and it was an clear de na it was grimmy out. She hud a ploor to let, furnished, two rooms and a wal bath, the and considerably dented. har kept fresh painted in spotless white.

"You may you want it quiet." said she,

WHAT TO DO FOR **ITCHING SKINS**

Scrams, ringworns and other inching. evening skin cruptions are so easily made has to be very careful. There is one

have to be very careful. There is one method, hawever, that you used not her litate to use, even on a baby's tender skin within the preservicition of a Baltimore dootar, but up in the form of reminal cintment and reminal coan. This proved so remarkably auccount it that the userable of other phy-sitians have been investing it constants by for 55 years. Teauval stops fitting instantly, and at most stuties coart. Restroit distance, and instant ecan the term of instant, any drus-

"and my son Sammy sent you here? Well, my husband, before he died, was the most popular policeman on the force, and the whole department, dariin', is your friends."

CHAPTER III.

For a moment June bestitated before the door of an employment agency next morning, and then she sharply beat down her reluctance. People who have made up their minds to be independent and to arn their own day in life must have no

timidity. She turned the knob with sudden boldness and opened it; then she amiled at her own sentitiveness as she stood before a pleasant faced woman. In the corner of whose eyes, however, there was a velled sharpness which June did

A very pretty woman came in as June Gaspipers. turned to go away, and with her was a little girl of great beauty. June hestitated That afternoon p. m. one tramply get caught up with the electric coupe and scrambled on the step and hung his thick woman at the deak smiled to June. The tieman of considerate dis newcomer followed that amile and her-newcomer followed that amile and her-self smiled at June. The little rirl had heen studying June frankly out of round gray eyes. Now she, too, smiled and, walking over, took June's hand.

"I like you," she said, with startling andor: then the employment agency roman laighed, and pretty Mrs. Wiles aughed. June dimpled. "I like you, too," she asknowiedged.

The employment agency woman rose. "Mrs. Murdock is listed as a gov. rness," she observed, and June winced at her new name. How queer this all semed! "Perhaps you would like to have a little chat."

Mrs. Wiles and June Moore-Warner-Justin-Day-Murdock were both agreeable to that suggestion, particularly since ittle Dolly Wiles had appropriated June away. for kneps. They sat in one of the cosy cornors, and when June rose she was en gaged. Mrs. Wiles was a most appealing woman.

All three were perfectly happy as they left /the office and rode in Mrs. Wiles ictoria up Fifth avenue to one of thes wide, clean streets which lead off from Central park.

June was considerably impressed by the Vilos' apartment and after luncheon took Dolty for a roller skating lesson in the park. Suddenly a voice from the rondway called:

"Bravel How do you do?" It was Cliffert Biye, who stepped out of a lim-

"Hello, younk lady! He held out his hand to Dolly Wiles with a fundliarity permissible to the very young and to the very old of femininity, and the child took it heatantly, with a shy upword

stance at June. Her big gray eyes wid-eucd, however, as they fell on the limousine. She dropped the hand and ran forward to the machine.

trokes upon him.

W. Casey. "Why are you destroying that plumister"

(To Be Continued Tomorrow.)

"I notice slight drip of water under beneath klitchen sink," I explain with Edison eyebrows.

"Sweet associations and good plu seldomly go side by side," she recom-pense. "Howeverly, if leaking continue o drip, I suppose we must telephone to that Burgiar to come again with tools and pretend to make reparation while do-

ing nothing except robbery." Flashes from her eyes while she said

"In this town does persons obtain bursiars by telephone?" I ask shockly, "When we wish burgiary we ask for plumber." she acknowledge. "They are

similar and the same. "Both are good ways to know," are bright remark for me while she go to telephone and require harship for Enocker & Scamp, Gen, Plumbers and

up with rude value and leisure express "Show me at that sink," he dement with

"Are you Plumber" I ask to know. "What do you think I am-an osteopath-"I am not acqualited with either of

not servant to attend to robbery, grocery,

butchery and all other forms of demen-

Plumb, kindly proceed on with your in-

Mr. Editor, we learn Philosophy by

Do not Hon. Mrs. Casey tell me be gen

"Togo, you appear less thoughtless than mal today." she report while biting vell.

Therefore I expect you to keep house for

"I shall keep as much as possible," are

stern volce I make, so she depart off

At hour 4:22 darkish gentleman of con

"I am Plumber," he report with nice

ness in his voice. "Are there some leak-

"There are plenty now without your

"I were sent here by Hon. Mrs. Casey,"

"I am an upstairs plumber, so must al-

"I show you upstairs," I narrate sweet-

tend pipes entirely on second fiber."

Mr. Editor, I were surprised

quistly that gentleman worked. No crude bank-pipe swear, or beer-call. In ½ hour

time he emerge down again with his pe-

On Wedensday afternoon p. m.

worn out before we learn consider-

fustry of work!

three (D) hours."

eip." I anatrel.

mooly upstairs to atlend it."

to such jobs without help."

stylaishly.

This she report with scorns. "Mr.

hose," I say so, "Show me at that sink," he glub while ticity." l lead him to kitchen-side where was. When he see it he stand on his elbows

awhile looking under below. Then he making hand-shake with calamity. Soery nake grunts with scornful tobacco mouth. "Everything must be removed," he re- part of this is that our hand-shakes beis surgically. "What so?" I herrify. "You mean say ou intend, take away that entire dishtlemanly by all plumbers? Yes. So why

washing department?" I blame? There is no answer to this. "Of suredly yes!" he vampire. "It are business of plumbing to take things

Mrs. depart away for slight tea-drunk at Little Mothers' Patchwork Club. "When shall you bring it back?" ! narrate hechly. "Perhaps sometime, perhaps never.

"Why you no enter same honest pro-cession?" I snagger, while standing with in titter impes.

There are too many running ottom tile garages already." he tell. "Some on must attend to the crimes, so it might siderable respectability and refined satchel encroach at hitchen. as well be 1. If I can enter homes and btain \$37.39 doing nothing and taking ing time about it, why should it be dis usting to you? Now kindly to please

tand away from my daylight while] emove off that sigh." "Ah, not to do!" I snagger. "Hon, Mrs

Boss may you are species of robber." "I am proud of such terms, yet I per nit no Japanese schoolboy to clutter

"I shall not permit!" I holls with Sam ural warcry. "Then I shall wreats you out of here

he represent with swears while attacht d, his charred thumbs to my kneck. Th aroused my entage, and I commence mak

why, because I like his refinement. "Not to do, eminent Sir," he repose with ambamador bows. "I am accustomed ing skiiful jiu jitsu on his stummach while chairs, curiains & dishware con-tinus exploding from that surfar which ve enjoyed amidat delicious wypolage of

"Heathenish mitton!" he marrel. "Harva kiri!" I clapse making storn

While this displeasure shaped blond acrosch ware heard at door. "Tesoillil?"" This from Hon. Mrs. J.

"In some homes I "How could he?" This from her with ladios," he narrate. onter I enjoy feeling of butt-in which gasps.

"Are you surprised at what they do?" "Anything more you wish take away?" I ask to know. "This plumber were en-snuggest for politeness. "Ursly refined, workman. He refuse to "Maybe I could use silver from sidehandle brutal lead pipes, so he took al

Yours truty, HASHIMURA TOGO.

board," he reject thoughtishly. "You ver candlesticks and other etceteras." should not mind that obtrusion." "Not the least!" I migify. "If Screeches. She jounce upstairs. She plounce down again. "Al gone!" she holla with consider

plumbers were so educational and oulture like you, few curses would be made. ture like you, few curses would be made. You work with silence and make no rude again. "All gone! Dimind depart, noises of shoes, hammers and steam. necklace walk away, stick-pin miss. You work with silence and make no rude There are several variety, perhapsiy! watch quit, money clope - entirely "No doubtless!" He say this while eneverything ruined. Thievery have been lecting spoons which could fit inside his in home. He shall never come backill'

coat. While I admire his skillfulness of Weeps. "All, sweethearted Mrs. Madam, oon suddenly he turn round and poke one nlarged shooting-revolver to my eye. tain less grief," I report. "This robber "Stand in corner!" he relate while re- are quite expensive and fashionable, yet enlarged shooting-revolver to my eye.

moving all pity from his face. "Say noth-ing in complete allence or I shall blow plumbers." your head from your brains. Did you "What you mean to say it?" she

suspect I was not a plumber?" Pretty moonly I hear indy-sound of growell "If he never come back to your home

eet amidst slam of door and was sure then he will never bring the bill for Hon, Mrs. Casey was there. I like to what he done," I waft consolely while walking away from that employment before beink kicked there. explain her something, but could not do, thank you, because gags from Hon. Necktic continue to tangle my conver-Hoping you are the same.

sation. At lastly she net what was startles for her.

he derange chivalrously. "I shall go at "The isakage are downstairs," I mugrest kindly, because I was told not insult

Doca He Love You!

LOSING HOPE WOMAN VERY ILL

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Vegetable Com-

3

4

pound. My back acheduntil I thought it would break, I had pains all over me nervous feelings and periodic troubles. was very weak and 2.2.2.2.2.2.2 run down and was losing hope of ever being well and strong. After tak-

ing Lydia E. Pinkham's Vegetable Compound I improved rapidly and today am a well woman. cannot tell you how happy I feel and I cannot say too much for your Compound. Would not be without it in the house if it cost three times the amount."-Mrs. CHAS. CHAFMAN, R. F. D. No. 7. Bellevue, Ohio.

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would be foolish to try living on \$15 a Dear Miss Pairtax: I am 28 and in love week when you are capable of parning more than that yourself. By all means continue going to business for a time if you decide to marry this boy. You are Right.

Dear Mine Pairtax: I am 29-and in love with a young man six years my junior, and we are contemplating marriage. He is now earning Hö per week thas a chance of advancement) and I am earning Hö. Do you think the differences in our ages should mar our happines? I decided that I would continue to work for noise time after we were married. The you advise me to go into husiness as hereidfore misted in order to accumu-late a few dollars for a raisy day? LiftLIAN A. P. lits matches looking considerable stuffed. "Yon fiulsh that work " I ask to know.

"Entirely complete?" he say off. "I are taking away considerable fixtures needed in plumbing business." "You are writermed, I am sure." I de-poen for sweetly smiling. "Hon. Mrs. "Sourcementation are been and loyal affection." Tou are too your worth while he will surmountable barrier, but is one you worth waiting for.

You are too young to marry. If he is worth while he will decide you are well

Dear Miss Fairfax: I am a girl if wears old and an in fowe with a young gnan three years my senior. He tells me he loves me and I believe he does. His first acted me to marry hims and I tell him to wait until I am 15 years old, but he does not want to walt. L. C. P.

Are you sure that this boy of I is d

Advice to Lovelorn : By Beatrice should consider carefully. I think you