**Fundamental** 

Principles of

Health 2300

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ANEMIA.

familiar words and in their ordinary

meaning probably no words are more

widely understood, and yet in specific

application no terms are more difficult

to express and comprehend. It is

generally understood that life consists

in an ability to change and to adapt

to environment, and probably it will

be generally agreed that health is an

normal body, absence of disease and

Few of us ever get very far along

life's highway without departing in

some degree from this ideal condi-

tion, and few ever fully recover it

once it is lost, largely because we do

not understand what we have lost,

where we lost it, why we lost it, how

we lost it or how it may be regained.

color, and few convalescents from

us, by saying, "We are a little ane-

mic," and then we take some fron

because it is known that iron has a

oxygen to breathe in order to restore

Anemia as generally understood is a

in the blood or its constituents.

and comprehend its limits.

terfere with her system.

lological processes, is dependent for

our arrested development types.

from the normal.

of the body.

ergy to the eve

The chief characteristic of disease

a normal blood supply.

Life and health are among our most

Front view of the French war dirigible, Spiess, which is of the semi

# PANAMA CANAL IS OPENED TO THE MARINE TRAFFIC OF THE WORLD

Liner Ancon of the War Department Makes Trip Through Waterway That Marked Official Opening of Canal for Traffic-Big Ditch Is Completed After 400 Years of Effort by Leading Nations.

in a few years, and on that basis a re-

and three years later the city of Pan-

ama was founded to become, in a short

time, the richest city in the world

and the terminus of the route by

means of which Spanish adventurers

can countries to Spain. Highways were

paved with brick across the isthmus

to provide route for the pack animals.

were proposed by Savadera, a Spanish

engineer among Balboa's followers,

who was about to forward his project

to King Charles V. of Spain when the

king died. Surveys of the proposed

canal route first were made in 1581 by

Spanish engineers, who reported the

project impossible of accomplishment.

In 1620 King Phillip II decided against

because "What God bath toined to-

of England, tried to found a commun-

ity on the Isthmus of Darien, south of

the present Panama, with the ultimate

gether, let no man put asunder."

The first definite plans for a canal

Panama.-The United States war de- | in the Pacific opposite the canal. partment steamship Ancon made the American ships will receive no concespassage through the Panama canal, sions in fare. and transit through the waterway was officially open to the traffic of the turn \$12,500,000 to the canal treasury

The Aucon left its berth at Cristobal will cover the \$4,000,000 a year cost at seven o'clock in the morning and of operation, and almost cover the admade its way to the end of the deep ditional \$11,000,000 interest on the water channel from the Atlantic to the money required to build the waterway. Catun locks. It went through these Judging by the experiences of the

President Woodrow Wilson.

locks, which have a lift of 85 feet, in 70 minutes. It continued through the waterway, from deep water on the Atlantic to deep water on the Pacific side, without incident.

Leaving Cristobal, the Ancon passed several vessels at anchor in the harbor, waiting to follow it through the canal and thus make the first commercial use of the water.

The decks of the Ancon were crowded with guests of the government and officials of the canal administration and the republic of Panama. The party included Colonel Goethals, U. S. A., builder of the canal and governor of the zone; President Porras of Pan ama, and Capt. Hugh Rodman, U. S. N., superintendent of transportation. In conformity with a promise made by Colonel Goethals, the peace flag of

Beneath its decks, however, were two huge pieces of artillery which are destined to form an important part in the defenses of the waterway.

the American Peace society fluttered

from the foremast of the Ancon.

The great waterway now becomes "free and open to the vessels of commerce and of war of all nations on terms of entire equality," in accordance to the provisions of the Hay Pauncefote treaty.

Vessels drawing not more than thirty feet of water and up to 10,000 tons register may now make the passage. It would be possible to put some of mian route. Although that project the big American dreadnaughts proved an utter failure, other British through at any time.

The passage of the Ancon and its company of ships opens the canal to shipping, although the formal opening the German poet, Goethe, said: "It is believing the other dead, were reof the waterway will not take place until next spring. Tickets have been sold at the isthmus to all vessels waiting to make the trip. The charge is \$1.25 a ton, which is purely nominal in view of the fact that it cuts about 10,-000 miles and two months of almost continuous steaming from the time re- ful revolt of the South American col- given up as dead. Recently he learned quired for the ordinary freighter to go onless stopped the work. In 1825 Pres. of his sister's whereabouts, and came around South America to a position ident Bolivar of the republic of New here to visit her.

Missouri Executive Heads State High-

way Work on Second Annual

Goods Roads Day.

Jefferson, Mo .- Armed with pick and

sults are expected this year.

THEODORE ROOSEVELT

intention of establishing a transisth

surveys were made from time to time

In the first part of the last century

the Mexican gulf to the Pacific ocean,

In 1814 the Spanish government, by

of an isthmian canal but the success-

and I am certain they will do it."

The results obtained last year in Missouri stood out so favorably and were at work and served real feeds the plan proved so popular that many other states took up the idea, while | noon hour into a picnic. more are preparing to follow the move of Missouri this year. August dates shovel, Governor Major for the second were selected because the season is time led Missouri men in the better- most favorable for road improvements ing the federal tax, a brewing comment of the state's highways. Major and because the farmers have more | pany allowed 17,000 gallons of beer to

inaugurated a good roads plan last spare time at this particular season. year, and 250,000 men in the two days | Thousands of Missouri chickens been on hand when the state prohibt cated work and material estimated | were sacrificed to the cause, The tion law went into effect on July t.

Sidesteps Federal Tax. Parkersburg, W. Va.-To avoid pay-

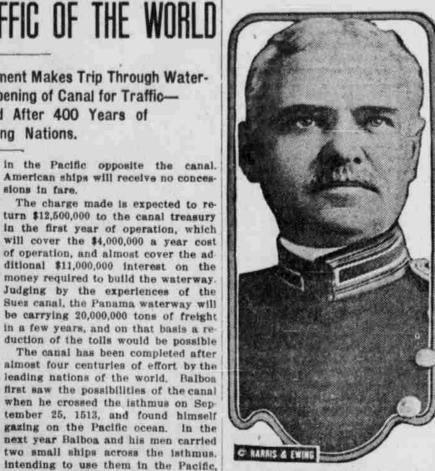
Granada gave a franchise for a cana at Panama to a Frenchman, Barot Thierry, who failed to raise the cap ital required to carry out the project

The first appearance of the United States in the history of the Panami canal idea was in 1835, when Henry Clay introduced a resolution in the senate which resulted in Charles Biddle being sent by President Jackson to visit the various canal routes proposed and report on their relative feasibilities. Biddle reported in the following year that he had been so struck by the feasibility of the Panama route that he had not visited the other proposed routes, the Nicaraguan, Darien and Tehuantepec projects.

Ferdinand de Lesseps, the builder of the Suez canal, formed the Interoceante Canal company in Paris in 1877 and actual work on the canal was started in the next year. On January 20, 1880. the De Lesseps company, in the presence of a distinguished gathering, fired the first blast for the tearing away of Culebra hill. De Lesseps withdrew from the project in 1887 when the impossibility of building a sea level canal within the estimated 12 years became apparent

At the same time it was indicated the project could not be completed for the estimated cost of \$240,000,000, as \$290,000,000 already had been spent. individual condition of sound mind, The company went into bankruptcy, In 1894 the New Panama Canal company started work again, but it practically ceased operations after five years of desultory work.

The United States in 1904 obtained the necessary concession from the new republic of Panama for the building



Col. George W. Goethals.

of the canal and took over the rights and properties of the old French company. Actual operations started or transported the plunder of the Incas of large transportation companies in from Peru and other South Ameri- the United Straes were put in charge of the building of the canal one after another at the start of the project, but each in turn gave up the work and returned home. Finally the government put Colonel Goethals in charge of the operations and under his leadership

the bulk of the work has been done. The first union of the Pacific and At lantic waters was on October 10, 1913. when President Wilson touched ap electric button in Washington, which exploded a charge under the Gambos dike.

building the canal after referring the The first boat of any description to question to the Dominican friars, who make the complete trip through the suggested the project was sacrilegious canal was a nameless mud scow of the Panama railroad, which passed from the Pacific entrance to Culebra cut in The nervous system, controlling pt England became interested in the November, 1913, and was sent to the possibilities of a canal in the latter Atlantic entrance in the following part of the seventeenth century when month. William Paterson, founder of the Bank

On January 7, 1914, the crane boat Alexander La Valley, an old French vessel of 1,200 tons, steamed through the canal from the Atlantic to the Pacific. The first vessel to steam entirely around South America by way of the canal was the tug Reliance, Capt. R. C. Thompson, which sailed from Colon on February 11, 1914.

### WOUNDED BIRD UPSETS BOAT

Gets Caught on Woman's Hat and Nearly Causes Her Death by Drowning.

Cold Spring, N. Y .- A maimed sparrow, which fell upon Mrs. Floyd Nesbitt's hat, and got entangled in the trimmings, nearly caused her death

by drowning on Lake Oscawana. She was paddling alone in a canoe. When the bird landed on her hat, and was caught. Mrs. Nesbitt, frightened, jumped to her feet and overbalanced the canoe. Her husband, who was on shore, swam out and brought her to safety. The bird escaped in the excitement.

Reunited After 38 Years' Separation. Wilkes-Barre, Pa.-Mrs. Margaret Backes of Pittston and Peter Miller of Chicago, brother and sister, who have been separated for 38 years, each absolutely indispensable that the united when Miller walked into the United States effect a passage from home of his sister unnanounced and declared he was her long lost brother. Miller and his sister lived at Bucalo 38 years ago. He then decided to go decree entered upon the construction West, and when after a few months no more was heard of him he was

GOV. MAJOR IN OVERALLS to be worth \$1,500,000. Greater re | good wives, knowing well the appetites of road workers, selected shady spots near where the various gangs for the volunteers, which turned the

flow into the Kenawah. The beer had

because we are unable to make our ideas coincide with things as they actually exist. This being true, then in anemia we have the most general and the most insidious and destructive foe to the attainment of man's chief desire—happiness. For the fundamental characteristic of anemia is lassitude, weakness and impotence -incapacity for happiness.

> Examination of every efficient steam engine will disclose that the designer and the construction engineers have recognized the necessity of constructing the machine according to the requirements of natural physical laws, and there will be found a definite ratio between the grate surface on which the carbon fuel is burned, the boiler surface by means of which the water is exposed to the heat of combustion and the cylinder area and stroke through which the transformed potential energy is delivered as dynamic energy.

Our bodies, like other machines, have a definite capacity for transforming potential energy contained in what we call food into dynamic energy, and there is not any great margin, or, as the engineers call it, factor of safety. We work close to our capacity most of the time. Therefore, if we waste energy or if we do not take in sufficient quantity of food of the right quality we fall to maintain our physical energy balance. A steam engine or a gasoline engine simply stops when the fuel runs out, but the human body cannot stop and live.

Normal blood of the average man contains about five million corpuscies per cubic millimeter, a millimeter being approximately one twenty-fifth of is loss of physical strength and of an inch. We have noted that the total area of all the corpuscles in the body of the average man is approximately even comparatively slight illness fail 35,000 square feet, and that the hemto show these two symptoms in oglobin spread over this area of blood marked degree. We cover the condicorpuscles carries oxygen to the cells tion, quite satisfactorily to most of in distant parts of the body to enable them to breathe or oxidize and burn up the matter necessary to cell life. This corpuscular area passes through a strong affinity for oxygen and we capillary network in the lungs approxknow that our body cells must have imating 807 square feet of surface.

Nowhere in nature do we find any

The blood contains iron and the iron in the blood corpuscle is mostly in a combination known as "hemoglobin," which has a peculiarly loose affinity for oxygen and carries that element to the individual cells throughout the body, enabling them to We have already noted in previous articles that we can live only about weakness, palpitation, shortness of three minutes without air, and we shall see see light to feel the skin, and many shall see as we pursue this inquiry are liable to faint as the result of any how quickly and intelligently nature adjusts and compensates for material changes in environment, if only we

again. have sufficient intelligence not to in-It is on this complicated cycle of changes that our health, happiness and sanity depends, and the slightest visible evidence of anemia may be taken to mean a grave disturbance of the balance between these changes and consequently of every vital function For sound health normal digestion is a necessity; for sound thought, normal digestion is likewise a necessity.

ent quantity or of normal quality. In all anemias the individual cells, These congenital anemics, unless the corpusdes, suffer first in quality; given extraordinary care, are unable that is to say, the hemoglobin conto develop normally and go to form tents are first reduced and then after a time the corpuscles themselves be-Fortunately, the matter of sound gin to deteriorate in general quality

blood need not be a matter of perand number. sonal opinion, as there are scientific Barring a congenital anemia resultmeans available for determining its ing from very anemic mothers, incondition once we are made to com- fants are given a fresh and fair start prehend the gravity of any departure each generation, the newborn infant showing about 8,500,000 corpuscles per cubic millimeter, but reverting to normay in the course of about two weeks after food is ingested. It would be the part of intelligence carefully to watch

# REMARKS THAT CAUSED WAR | the clerk's hair started to rise as he

Event Probably Not Recognized Internationally, but Decidedly Lively While It Lasted.

UNDERFED BLOOD.

The fundamental basis of all philos-

While the policy of watchful waiting store." continued in Mexico City, Washington had a little Mexican war of its own. Not much blood was shed and no arrests were made, but it was a lively young war at that. Several days ago out two young and stylishly dressed Mexicans stopped in front of a haberdashery at the west end of Pennsylvania avenue. Mexicans? Well, anyhow, they looked like Mexicans, and from He had reached the door. the way the shorter one started to mix

was a clerk. The duo walked into the store and the shorter one announced that he proprietor, two clerks and the friend wanted to see a pair of socks.

The shorter Mexican looked at the ington Star. socks contemptuously and flung them back on the counter. When he spoke it was in perfect English.

"They sell those in my country 20 we are ourselves in ruin.-Heinrich for two pesos," he said. You could see Heine

91648 46.

the ruddy glow of health to the cheek, great margin over actual necessities, the rhythmic and vigorous swing to and the fact that there is a material the walk, the sparkle of vim and endifference in the net results of combustion at low and at high altitudes raises many questions in the inquiring condition marked by pallor of the skin mind. We know that water boils at and mucous membranes, and by palpisea level at 212 degrees Fahrenheit, tation and debility, due to a deficiency and at 10,000 feet above sea level the same water boils at 192 degrees Fahrenhelt. Many of us have experienced To be able to sense the character of the practical difficulties of this in atany physical body we must be able to tempting to cook beans or boil eggs see and to comprehend its three diat the higher altitude. If our oxygen mensions of length, breadth and thickbalance is so close and delicate, how ness and personally to test its density is it then that man lives and thrives and hardness; and in like manner to as well at the high as at the low altiwin and maintain health we must see tude?

In clearing up this point we find an illustration of the wonderful compensating power these bodies of ours have, if we will only give them the necessary material to work with. The first effect of our going quickly from a low to a high altitude is that most of us are subject to symptoms exactly paralleling those of anemia; there is material exertion. But after a few weeks "we get used to the climate" and everything resumes the normal

Now, as a matter of fact, we have experienced a "technical" anemia. The lightness of the air gave us less oxygen at each breath; less pressure on our bodies called for more blood in the tissues, consequently less blood was in the veins and arteries. Therefore the heart and lungs had both to work harder and faster to keep things moving. But after about two weeks a blood count will show that the 5,000. 000 corpuscies to the cubic millimeter have increased at 5,000 feet altitude to 6,500,000 corpuscles.

If the body is so jealous of its balance in numbers and areas of blood its health and ability to function on corpuscies as shown by its so cleverly the nutrition derived from the blood; matching one against the other-"auand it is owing to deficient nutrition | tomatically," as we express it—we can derived from the blood in anemia that begin to understand why there is so the tissues of the secreting glands and much unrest and unhappiness when the glands themselves, the secreting through deficiency of hemoglobin the cells, the secretions and the muscular oxygen demands of the body are reand all other tissues of the digestive duced one-tenth or one-half. Kirk says system, are in a defective condition, that 13,000 grains of oxygen are abin consequence of which they are in- sorbed daily by the lungs of an avercapable of fulfilling their functions. age healthy adult; therefore, if hemo-Children of anemic parents have ill globin is 10 per cent deficient that indeveloped bloodforming organs at dividual would receive only 11,700 birth and consequently are unable to grains, and if 20 per cent deficient only manufacture red corpuscles in suffici- 11,400 grains.

ophies is the pursuit of happiness. and guard this practically absolute in-And we fail to attain the desire only dicator of health.

heard the word "pesos." He had been

reading the paper. "Come on," continued the young Mexican to his companion. "We will leave this hideous hole and go to a

The clerks face showed astonishment "Huh?" he said.

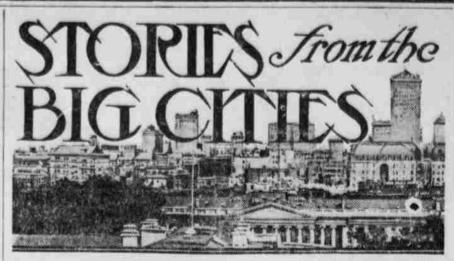
The Mexican was already walking "Wanta see something better?" the clerk shouted.

"Your garments are intended for old women," the Mexican shouted back. "Well," said the clerk, "when we git

things it seems reasonably certain that through with your old country you'll the guess holds good. His opponent wish you had these, 'cause you won't have nothing else!" Then the fight started. It took the

of the Mexican to break it up.-Wash-

Must Be Fellow Feeling. We do not comprehend ruins until



## Newsie to Enjoy What He Calls "God's Freedom"

N EW YORK.—Lower Broadway is going to lose one of its newsies. Isidore Greenberg, who for 13 years has sold papers at the northeast corner of Broadway and Fulton street, is going to enter Cornell to study scientific agri-

culture! He told a reporter that he had been selling newspapers since he was five years old. He is eighteen. "I kept my wits about me," was the way he put it. "I worked hard, I studied and observed men and events.

and now I am going to be graduated

from the street corner. It was a good

prep.' school, even if it was a hard "But why scientific agriculture?" he was asked. "Why not the law or medicine?"

"The woods are full of them," said Izzy, "and then you've got to remember that scientific agriculture is the coming thing. I've stood on the corner down there many a long afternoon looking and listening and thinking it

"I've watched the faces of the thousands of men and women who passed me in the crowds and it struck me that a lot of them were playing a losing game. They were prisoners of the city, serving a life sentence.

"I knew that the day would come when I'd have to quit the game on the corner, and I kept wondering what I'd do. The outdoor life has made me hard as nails. I wanted to find something that would keep me out in God's fresh air-something that I liked and that would be a paying propo-

"And then it all came to me in a flash. People have forgotten that all the wealth in the world comes out of the ground. They've left the open places of the earth and have crowded into the markets in the cities, and they are stepping on each other and narrowing themselves, mentally and physically, while they grub for pay dirt.

"Pretty soon, some day, they are going to go back home-back to the forests and the farms, and when the back-to-nature movement starts the man who has specialized in scientific agriculture is going to have his day."

# Love Powders a Failure; Wizard Lands in Cell

C HICAGO.—Prof. Pesizo Lomez, the "love-powder man," landed in jail the other day. The police believe this announcement will have the effect of breaking a number of "love spells" which the "professor" conjured up for negro women on the South side at \$1 per conjure. LADY, HAS YO' AHY

Professor Lomez is a negro who found it convenient for business reasons to adopt the Cuban flag as his national symbol. His real name is John Henry William Rogers-at least that is as much of it as the police have at present.

"Lady, has you any love troubles? Is yo' fee-an-see untrue to you? Is yo' husband's love gettin' like a col' potato? Does you want to bring

back some gentlem'n fren' who loved and went away?" This was the introduction used at South side back doors by Professor

The charm seller then introduced the powder that would bring to pass the wishes of the purchaser. With mysterious passes of the hand he would mix the powder in half a

glass of water and tell his patron to drink it. "Now concentrate on the object of yo' desiahs," he would say, tying a small gold-colored thread around the patron's left ankle. The dexterous col-

lection of \$1 completed the "confuring." Mrs. Anna Wilvey of 335 West Thirty-seventh street met the love powder man at Forty-second street and Wentworth avenue, where he was just coming out of a house. She called a policeman and had the "professor"

"That powder didn't work on me; I want my dollar back," said Mrs.

### "Bread Cast on Waters" Returned With Interest

NDIANAPOLIS, IND.-Milton Elrod, an Indianapolis business man, has become convinced that bread cast on the waters will return after many days. In his case, however, it came back in a few hours.



With a party of friends he was driving in an automobile in the vicinity of Martinsville. Two miles north of that place they found a dead machine along the road with three perspiring men standing beside it.

IS YO PEE-AN-SEE

UNTRUE TO YO'?

THIS LOVE

CHARM WILL

FIX IT ALL UP

SCRUMPOUS

"Say, partner," said one of the men, "know anything about an auto? We can't get this blamed thing to

Elrod remarked that he did not know a great deal about a machine,

but he would fix it if he could. It did not take long to find the trouble and he soon had the engine going. The occupants were profuse in their thanks and offered to pay him for his trouble. He declined with thanks and one of the men said he might be in a position to favor him some day and that he would not forget his kindness. Elrod got back to the city about nine o'clock the same evening and was

"hitting it up" pretty lively in North Meridian street when a policeman stepped out and stopped him. "Little too fast there, partner. Better drive down to the station house th me," said the policeman

He then stepped up to the side of the car and got his first view of Elrod. moment later he surprised that young man by ordering him to drive on.

"Beat it and beat it quick," he said. The policeman was one of the occupants of the stalled car near Martins-

### Society Woman's Black and White "Child" Lost

AN FRANCISCO, CAL .- A symphony in black and white, in which figured a black and white automobile, a black and white gowned society matron of Nob Hill and a black and white "child" almost turned out a tragedy the other day at the ocean beach. First

the society woman left her automobile and raced up and down and in and out of the park near by. Finally she saw a policeman, and in accents wild implored him to "find her child." "Just the sweetest little thing, so

high," she moaned. "He's all in white, with a pink face. He crawled out of my car and ran into the bushes. Assistance, Mr. Policeman, dear Mr. Po-

liceman, assistance." Immediately the doughty officer thought of kidnapers. So, before he advanced into the bushes, he drew his trusty revolver and held it ready. The matron followed, remarking that the

"child" might be in a sand pile, as he dearly loved to play in dirt. At the end of half an hour's search the policeman saw a movement in the bushes. He crept up cautiously and drew the branches aside. There, scratching and pawing in the ground, was a little white Spitz dog. 'My child, my own dearly beloved Ruthle!" cried the woman, as she

leaned for the animal. "I thought I had lost you, you naughty, naughty girl. Oh, Mr. Policeman, please pardon me, but if you had known it was a dog you wouldn't have looked for it.'

The black and white auto flashed up the road. Then, and not until then, the policeman said-.

Apprehensive. Wife-Ta-ta, dearie. I shall write before the end of the week Husband-Good gracious. Alice!

His Policy. "Do you kiss all the pretty girls in the course of your campaign?" "Certainly; no candidate should fail ! You must make that check last longer to embrace every opportunity to make himself ogreeable."