

PROBLEMS THAT FACE INVENTIVE GENIUSES

Every Field of Human Endeavor Is Being Investigated With Slow Patience by Scientists—Great Consumption of Coal by the Railroads.

BY FREDERICK J. HASKIN.
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As the world today looks back upon the reign of Elizabeth as the golden age of letters, upon the era of Péricles as the golden age of Greek civilization, so the world of the future will look back upon the twentieth century as the golden age of science. The wonderful inventions and discoveries of the nineteenth century have already changed the whole world, but there is good reason for the faith of scientific men that they were only the seeds scattered from the hand of the sower, the promise of the full fruition to come in this present century.

The scientists of the United States do not lead all the world, it is true, but the Americans are first in the application of science to practical affairs. There was a time when the scientist was a recluse who pursued his painstaking investigations merely for the love of his work. Nowadays the scientist works with a purpose and that purpose the desire to lighten the burden, increase the usefulness, and add to the pleasure of every living man.

Every field of human inquiry is being examined into with the slow, patient, careful and intelligent questioning of the scientist. Every discovery made is instantly applied to some problem of actual life. Time was, and not so long ago, that the world laughed at the be-appealed man who bent for years over his microscope looking at "microbes." The world laughs no longer. That much despised "bugologist" has freed the race from mortal fear of many diseases, he has found the way to prevent devastating blights which destroyed useful plants, he is still tirelessly at work for the good of mankind.

Science of Future.
The great problem of the inventor and the scientist of the future will be the utilization of what the people now waste in this country. For instance, it is said that the railroads of the United States use 150,000,000 tons of coal a year in their engines, and that the energy of only 7,500,000 tons of this is utilized, the energy of the other 142,500,000 tons passing uselessly away into the air. Every ton of this wasted coal gives off 65,000 pounds of carbonic acid gas and each pound of it has as much efficiency in it as three pounds of steam. Thus, every year the railroads alone waste power equivalent to twenty-seven million horsepower.

Think of the wonderful benefits the man will confer upon humanity who will find a practical way to utilize only one-half of the wasted energy! If all coal consumption shows a proportionate amount of wasted energy it means that in the United States we annually lose the energy of more than sixty-five trillion pounds of steam. That energy, properly doled out, would be sufficient to meet all the power requirements of the whole world. Some idea of its inconceivable imminence may be gathered from the statement that if every one of the twenty-five million horses in the United States were required to exert their full pulling power, it would take them more than 6,500 years, working eight hours out of every day and 360 days out of every year, to perform a like amount of work.

Then there is the waste of water power. The total amount of water power used in 1905 was about a million and a half horse-power. If the streams of the United States from the smallest available mountain brook up to the waterfalls and rapids of the big rivers were harnessed, it would probably show a hundred per cent increase over the present capacity, or enough to

eral utilization of sun power than it was from the Watt steam engine to one of the modern kind showing 10,000 horsepower. Or is it a longer distance to travel than from Fulton's Clermont to the twentieth century Lusatiana?

Brings New Methods.
The century will bring forth new methods of preventing fires and of fighting those which do occur. In the past 25 years the fire losses of the United States have amounted to \$500,000,000. The money values thus wiped out would be enough to furnish 1,250,000 families with \$5,000 homes. Fireproof buildings will be imperative necessities as building materials become scarcer. In the countries of Europe, furniture, even in the homes of the poor, lasts for hundreds of years. Dometalling and the like prevent it from ever falling to pieces. Who would think of such things here? It is cheaper to buy a new paper of pins than to pick up those scattered around. It is cheaper to use half dozen bedsteads that have been glued together than to buy one perfectly made. It has been cheaper to rebuild a house, if it happened to burn down, than it was to build a good one in the first place. All of this argues wonderfully against the resources of the end of the century necessity will have caused us to evolve a plan of living on the basis of "once well done, twice done."

The new century will revolutionize warfare, and a bold prophet indeed is he who will have foreseen the end-of-the-century battle, if perchance, brute force is recognized at all in those days. Already the new year is its happy childhood, has given us the promise of a shipper which were of effective in time of war. Every new year brings forth new inventions to add to the hideousness of the war monster and each one of these inventions such terrible carnage that every human impulse revolts at the thought. Each step of progress in the science of war seems to make the possibilities of war more remote.

The health of humanity will be a matter of general concern in the days that are to come. The span of life will be lengthened. Science will wipe out epidemics, individual understanding of the laws of health will enable us to avoid a thousand ills. It is not improbable that necessity will force upon us the Chinese way of paying our doctors to keep us well instead of rewarding them for treating us when we are sick. The discovery of dirt has been said to be the hygienic triumph of the nineteenth century. So has the practice of cleanliness been the triumph of the twentieth century. Plenty of sun, plenty of pure air, plenty of pure food and of fresh water everywhere will be the order of the years to come. Trying to keep well rather than to cure disease will be the individual policy of those days.

Improvement of Health.
The application of the discoveries of science to sanitation and hygiene has already resulted in great improvement of the public health. Our grandfathers did not dream of the science of cleanliness as we know it today. The grandsons of the more enlightened Americans of the first of the century will be better and stronger men in the end of the century. When the United States comes to the year 2000 with 385,000,000 people it will be the greatest nation of history. Much of the credit for that triumph will be due to the scientist who has made possible the intimate daily communication of the people all over the broad country, who has made knowledge popular and cheap, who is teaching us how to be clean and healthy. The application of science to daily life means that the people of the end of the century will be better men than we are—better physically, better mentally and better morally.

ALBINA SHIPPERS MAKE COMPLAINT

(Salem Bureau of The Journal.)
Salem, Or., June 9.—Pursuant to a notice served on the railroad commission some time ago, the O. R. & N. yesterday discontinued the practice of delivering less than a carload of freight in the Albina yards shippers. The shippers were greatly accommodated by the former service and will take steps to have it reinstated. The commission is considering the matter at this time.

SCHOOL TEACHER and Coffee Drinking

Many good people are loth to give up coffee, even though they admit that it is doing them harm, because they fear that nothing else in the way of a hot beverage will satisfy them. A school teacher says:

"I always enjoyed coffee for breakfast. The day seemed lost without it. But in time I began to experience bad results from its use. I grew very nervous and lost flesh and finally was prostrated by a complete nervous breakdown. Then I was compelled to abandon the use of coffee.

"I adopted Postum as my hot beverage at breakfast. Have been using it for more than two years. My health is restored and I am able to take an interest in life once more.

"My whole family, children and all, drink Postum, and we all thrive and keep healthy on it. It is to us a delightful drink, delicious and tempting and with none of the harmful effects that usually followed the use of coffee.

"The choicest brands of Java and Mocha offered free, would not tempt us to quit the use of Postum."

Name given by Postum Co., Battle Creek, Mich. "There's a Reason." Read the little book, "The Road to Wellville," in pkgs.

Money-suckles Are Pretty.
The honeysuckle, or *Lonicera*, are many of them natives of our country. With few exceptions they are hardy, and bear a pleasing yellow or white flowers with a trailing habit of growth and others upright bushes.

The trumpet honeysuckle (*L. sempervirens*), of a handsome native species, not quite hardy in the extreme north. It bears clusters of bright red flowers in June, and usually a second crop in the fall, succeeded by red berries. It is often used as a porch climber. Because of its straggling growth it is most effective when trained over old walls or stone heaps, or over the roofs of low buildings. It is soon established by the use of cuttings, which can easily be kept in check by spraying with a tobacco insecticide.

Lonicera Japonica halliana is an excellent climber, a vigorous grower, with white, sweet-scented flowers. The choicest yellow variety is the *L. japonica*, a particularly fine specimen of climber, having heads of fragrant red and yellow flowers in great profusion. There are several varieties, those that do not begin to flower until late in the season being recommended for the northern states.

Lonicera Japonica aurea reticulata, a fine variety with yellow reticulate veins in the leaves, should have one or more kinds represented. The rose of Sharon (*Hibiscus syriacus*) and the common rose mallow (*H. alabaster*) are old favorites. Several species are natives of this country and as orna-

ALMOST A MIRACLE

His Body Distorted and Racked With Rheumatism for Two Years. This Young Man Now Walks and Works.

For a generation Dr. Williams' Pink Pills have been curing rheumatism and other diseases caused by poor blood and during that time certain cures have been published that were so marvelous in their nature that they have been termed modern miracles. Such a cure was that of Charles Calhoun Jr., now living at Capron, N. Y., and employed in a mill near his home. His case is widely known in the neighborhood in which Mr. Calhoun lives and the cure is regarded locally as nothing short of miraculous.

When the Calhoun family was living at Winfield, N. Y., some years ago the father was taken sick. "Our family doctor pronounced it inflammatory rheumatism," says Mr. Calhoun, "and he attended me for about a year. For nine months I was confined to the bed and in such agony that I could not bear the weight of the sheets nor to have any one touch me. I could not move myself at all."

"The rheumatism was complicated with a nervous trouble resembling St. Vitus' dance, my limbs and head jerked and I suffered all the agonies possible. Blisters were applied to my knees until they left scars, but I could not feel them. My fingers began to draw out of shape and get stiff."

"In spite of the doctor's treatment and all the medicine I took I kept getting worse. My feet swelled so that I could not get a stocking on and I could not straighten up at all. Finally the doctor told my father he could do nothing more for me."

"At this time Dr. Williams' Pink Pills were recommended to me and I found them a relief. I took three boxes and three boxes I could walk. I continued to take them steadily until I was cured. That was in 1895. I have worked every day for years now and am entirely well and have no trace of my old trouble whatever."

Our free pamphlet, "Diseases of the Blood," gives further information about the treatment of rheumatism.

Dr. Williams' Pink Pills are sold by all druggists or sent by mail, postpaid, on receipt of price, 50 cents per box; six boxes for \$2.50, by the Dr. Williams Medicine Company, Schenectady, N. Y.

NO GARDEN TOO SMALL FOR FRUITS

What Can Be Done With a Few Square Yards of Good Soil.

There are few home gardens so small that fruit can not be grown in them to advantage. Apple, pear and other fruit trees can be planted in the border of the garden, and while they may not do so well as in tilled orchards, the results are generally satisfactory.

Along a back fence or beside a walk one may plant a row of two of currants, gooseberries or blackberries, or he may make a trellis for grape vines. If there is room in three borders for six to eight fruit trees with bush fruits there is room without encroaching too much on the lawn.

Where space is more limited, dwarf trees may be grown. The apple is dwarfed by grafting upon small soil growing types of apple trees, such as the Paradise and Doucin stocks. The latter is the better, making a stronger tree. The pear is dwarfed by growing on the root of quince. Dwarf apple and pear trees may be planted as near as 10 feet apart each. A dwarf apple or pear tree should be kept at the height of 10 or 12 feet, and should not attain this stature in less than 10 or 12 years. A dwarf apple tree in full bearing should average from two pecks to three bushels of fruit a year. Buy your trees from a reliable dealer, first class stock. It does not pay to save at the sacrifice of quality.

Growing Beans.
Beans are easy to grow, but inexperienced gardeners often fail in their first crop by planting the seed before the ground has become warm and dry. No reliable seed will decay more quickly than the bean. Delay in waiting for the soil to dry out in the spring will be sure to result in a poor crop. The rapidity of growth when the beans are planted correctly.

Beans will grow in almost any soil, but the best results are obtained by having rich, well worked ground. The beans may be dropped in drills one inch deep, the seeds to be three inches apart. Cover with soil and firm with the back of a hoe. For bush varieties allow 18 to 24 inches between drills. For the dwarf limas two and a half feet is better. Limas should not be planted until the weather is warm. Bush limas are usually planted in hills two or three feet apart in the rows. Dwarf limas may be sown thinly in drills.

Numerous varieties of both the green podded and the wax bean are used for eating with the pod while tender. The rows of the black eyed peas are the most profitable string bean. The old fashioned cranberry or horticulture lima type is probably the best shell bean. It is the trouble of peeling it makes it unpopular. Both the dwarf limas and the pole limas require a season to mature than the bush varieties, and only one planting is usually made. The bush varieties may be planted at first maturity, but the best Each planting may be made on ground previously occupied by some early maturing crop.

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How much money can I save by buying at Lipman-Wolfe's Great June White Sale?

White goods reduced in every department.

Lipman, Wolfe & Co. invite comparison of their low sale prices in every department with those of other stores.

Lipman, Wolfe & Co.

READ THIS!

A RESULT OF "Too Much Medicine"

A gentleman called at our offices on the 14th of last month, inquiring as to our methods of treatment. He was thin, emaciated, the skin had a very yellow or sallow color, no appetite, could not sleep at night, had lost weight, suffering continuous pain and had spent a long period of time in the sanitariums, as well as hundreds of dollars, and getting no perceptible relief at all, and finally his physicians thought an operation was his only hope. As a last resort he came to us to merely see what we thought we could do, and after carefully considering his condition, we accepted his case for treatment, and TODAY he is improving rapidly and we can truthfully say that HE WILL GET WELL. He was "doped" with too much medicine—medicine is very good when needed, but the point is—"Don't give too much."

If you are in any way afflicted you will find us always ready to help you, so

DON'T HESITATE TO ASK US

Office Hours, 10 a. m. to 8 p. m. Sunday, 10 to 12.

Imponder-Therapy Co.

508 Merchants' Trust Building, Portland, Oregon

Entrance 326 1/2 Washington

Foster & Kleiser Signs

When the Nerves Cry— Look to the Coffee

The cry may be in some of many ways, Trembling, Sleepy in the day time (comes from stomach), Headache, Dyspepsia, Bowel Trouble, Heart Palpitation, Pains in various parts of the body, and even Piles, Diabetes and Weak Eyes originate in a disordered nervous system brought on by coffee.

If you don't heed the cry (Nature's hint) you may be sure the trouble will get worse, and not better, until you either quit the coffee habit which is the cause, or you develop fixed organic disease that may carry you down.

It is the finest trade possible, to quit coffee and get well.

Health is the most exquisite fun on earth.

It is easy to quit coffee when you have choice, well-made Postum, a delicious hot beverage with the deep seal brown of strong coffee that changes to a rich golden brown when cream is added. Then you have the crisp coffee "snap" and a flavour all its own. The nerves are relieved of the old hurt of the poisonous "Caffeine" of coffee and in its place you feed the system on strong food elements in Postum which quickly rebuild the wornout and exhausted nerve and brain cells destroyed by Coffee

These are facts. Prove them by 10 days' trial.

"There's a Reason"

Get the little book, "The Road to Wellville," in pkgs.

Postum Cereal Co., Ltd., Battle Creek, Mich.