SO THIS is Pactola!" Rose drew rein to survey the scene of desolation, and her willing horse stopped before what had been Bolsovar's bar-room and disdainfully nosed the sprays of wild raspberry that banked the bleached and rotting remains of a plank sidewalk. Stephen halted his steed, likewise, and availed himself of the young woman's abstraction to survey her. She was worth looking at. Well worth the while, and as long a while as decency might permit. Decidedly so! The scene itself, ruinous as it was, deserved more than a casual glance or two. A deserted mining camp. Not an altogether melancholy prospect; for where the sun shines and water runs and the two combine to bring forth herbage and flowers and leafy trees, no place can be utterly mournful, and Pactola had all these, and no depressing history to evoke pensive sighs from the beholders of its blessed decay. It was a smiling prospect, in fact: triumphantly smiling. Man had come to this Eden of the hills and had done his ugly worst with ax and saw and pick and shovel to mar and blemish it. Nature had suffered the invasion of her solitude, borne with patience mutilation and disfigurement, and yielded her golden tribute easily. Then the invaders had departed, leaving her to nurse her wounds and restore her wonted comeliness with moss and vine and the soft-hued pigments of wind and weather. Not much more than a straggling broken line of a single street along the course of a mountain stream; sagging roofs and walls of pine logs from which the bark was stripped in patches; rudely chinked and daubed log cabins, with here and there a sign whose faded lettering set forth some pretentious legend of business enterprise. The glass had disappeared from window frames, doorways gaped doorless or crazily ajar, and floors within were covered with litter of wind-blown leaves and weeds. Between the houses and the creek ran long trenches and uneven, grass-grown ridges, the work of the placer moles, and at one point in the burrowed hillside opposite, a cluster of dilapidated frame shacks surrounded two taller wooden structures from which extended a trestle leading to a pyramid of broken ore, and above which were some fallen sections of a flume.

"So this is Pactola!"

"This is Pactola," Stephen echoed. "There's Pactolus," he continued, waving to the creek, "and there Jamshid gloried and drank deep," he continued, indicating Mr. Bolsovar's once popular resort.

"It's weird!" said the girl. "To think of all that must have happened here, and now—the lion and the lizard. Are there any lions, do you think?"

"The mountain variety, I suppose," answered Stephen. "They won't be prowling at this time of day, though. Would you like to get down and stroll around the town?"

She dismounted lightly and he swung from his saddle and led his horse with hers to the part of Bolsovar's hitching rack still standing and tied them there, after testing the strength of the post. Then he waited while she flicked the dust from the skirts of her modish riding coat with an incongruous quirt of braided horsehair and then, tossing her gloves to him, reclaimed some straggling brown locks of hair with slender white fingers.

"No telling whom we may meet," she laughed.
Municipal and government ownership forms one of those spacious and comprehensive subjects which delight the heart of a publisher of college-debating outlines. But while the theoretical arguments extend in each direction out toward infinity, the ordinary citizen will find in his own supine indifference toward governmental finance the surest forecast of the probable outcome of such policies. Somehow government has become so complicated, helpless and apathetic as are the headlines which tell of revolving funds in the Treasury, of the second largest state, and so on indefinitely. He is slightly aware of its existence and spreading limbs. The philosopher's neighbors love him. His hair needs cutting. But when we come to government the average man's behavior is utterly different. He glances at newspaper headlines which are revolting funds in the Treasury, of the War Finance Corporation, of half a billion which the Secretary of the Treasury asks five hundred millions is mismanaged or not? What can he do if it is? When the United States is concentrating its financial operations without anyone really caring much or being much the wiser or knowing what it all means.

Money to Burn

The Blackwell Plan

In the summer of 1919 an inquiry set on foot by the Rotary Club, of Blackwell, Oklahoma, revealed the fact that of thirty-nine boys who were just out of grammar school eleven had found jobs and had decided not to go on with their schooling. Instead of wasting time in lamen: schools. The Rotarians of the town attacked the matter ham with the noteworthy result that no fewer than one hundred and fourteen boys who finished grammar school last June two months of hard work, announce that out of two hundred and thirty-nine enter high school.

The Rotarians of Memphis, Tennessee, after seven months of hard work, announce that out of two hundred fourteen boys who finished grammar school last June two hundred five have agreed to continue their studies this fall. A similar club in Newburgh, New York, has been concentrating its efforts on the local high school, with the noteworthy result that no fewer than twenty-five of them are about to enter college. Records like these are proof positive of the high possibilities of the back-to-school movement.

In Dallas, Texas, the Rotary Club maintains a loaning fund to assist poor boys who desire to continue their studies. Money is lent on the personal note of the borrower at four per cent interest, a life-insurance policy being the only security required by the club. This plan has worked out so well that it is spreading to other cities. In some places clubs maintain small loaning funds of slender means by finding them work that can be done out of school hours, in their own offices or elsewhere.

Money to Burn

The Blackwell Plan

Concerning Prophets

A prophet is without honor in his own country. The merit of his prophecies is obscured by his personality. One who observes a tree closely is intrigued by the minute and curious pattern of the bark; only those who stand at a distance can appreciate the grandeur of towering trunk and spreading limbs. The philosopher's neighbors love him because he tells a story cleverly, or hate him because he keeps a vicious dog; his philosophy does not interest them.

The verdict of posterity concerning the merit of a labor or the measure of a crime is a fair and reasonable judgment, for the thing judged has been purged of its baffling and disconcerting personality. Posterity is happily innocent of small prejudices. The judgment of posterity is made just by time; that of contemporaries by distance.

The prophet's fame begins in a far country. There his words are accepted because of their intrinsic worth. Disciples, being eager to do him honor and willing to justify their own opinions, endow him with a character to fit the wisdom of his sayings.

Thus, while distance gives assurance of justice in the judgment of a labor it prevents a just appraisal of the character of the laborer. If the poet would know the merit of his work he must let him appeal to distance and to time; but if he would know what manner of man he is let him ask his neighbors.

The distant world may get to its feet at the mention of a philosopher's name, but the philosopher's neighbor will see him only as a neighbor. "Wherefore is this man great? I observe that he eats and drinks and laughs and plays as I do. He is common and frequent and dull. Moreover, he doesn't sound his g's, and his hair needs cutting."

The neighbor mind limits the evidence to the details most interesting to itself. The grasshopper's wisdom is that of posterity.

The world, by its flattery, is forever tempting its great. The prophet is denied in his own home the honor that is his due he is not without his compensation. For one who is not known by all the world is in danger of becoming great in his own esteem and thus losing touch with the mass of humanity wherein his wisdom has its birth. Except the prophet be a god, the words he speaks are not his own. They are taken from the life of the people, and he is but a mouthpiece. The world's verdict of a philosopher is as different from the world's verdict of a prophet as if the prophet or his work were stored in the hearts of the people; a philo-osopher is one who has discovered a key to the storehouse.

If much praise fattens his ego his source of supply will be closed against him and there will be an end of his philosophy.

The word, by its flattery, is forever tempting its great ones to make themselves ridiculous. Only the neighbors, by their steadfast refusal to join in the cheering, insure to the prophet the measure of humility necessary to encourage industry and promote good work.
ALMOST with the intensity of their former war interest
German men of science are pursuing a new poison-
gas campaign, which is to achieve what the chlorine
and mustard-gas argument lamentably failed in, and put
the republic at last and really über Alles in der Welt. Even
case-hardened Germanophobes watch this campaign with
sympathy. Its purpose is to raise the badly sunken crops
to a level higher than that of prosperous prewar times; to
double or even treble the food production; to make an at
present ill-nourished people independent of foreign flour;
and thereby to restore the trade balance and rescue a
battered Reichsmark exchange from ever-increasing in-
flation. The secret of this, in Prussian professorial lan-
guage, is carbon fertilization of crops; in ordinary language
it is the diversion into and distribution among growing
plants of carbonic-acid gas, the CO$_2$ of school books, a gas
fatal to human beings and animals in very moderate
quantities, but beneficial and indispensable to plant life.

Through the application of adequate doses of this poison
gas wheat ears are doubled in weight and size; rye, which
in the German’s daily bread plays a greater role than
bread or even treble the food production; to make an at
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the rye grain against 80 per cent. If both water and minerals—between 1 and 2 per cent—are left out of account, 49 per cent of the average plant consists of carbon, against 43.5 per cent oxygen, 6.3 per cent hydrogen and 1.2 per cent nitrogen. Of course, that makes, as used forty times as much as of nitrogen, for which in the form of nitrate every farmer provides as a matter of course. Of cellulose 44.4 per cent is carbon, lignin, the wood matter, 55 per cent; of sugar 40 per cent; of straw 46 to 50 per cent; of albumen 50 to 44 per cent; and oil and fat actually 10 per cent. Carbon supplies from nearly onehalf the total weight of the substances of every plant material which has value as food or in industrial use.

For growth, in addition to the four chief elements mentioned, every plant requires nine other elements. It requires sulphur, silicon, aluminium, sodium, magnesium, iron, calcium, potassium and phosphorus. Of these the last two are the most essential for the production of high grade plant products. Potassium is necessary in the highest degree by the leaves of the plant; the other elements are required in varying amounts by the various plants and stages of growth.

The quantity of carbonic acid in the atmosphere, it is true, is small. Measured by volume it is only .03 per cent of the ordinary air, but it is always present in the air in varying amounts according to the height of the cloud and the slowness or swiftness of the wind. The organic matter in a humus soil is continually decomposed by bacteria, worms and minute animals, and the carbonic acid gas is set free. Organic matter, in particular animal, fertilizers are decomposed by the same means with the same result. Like all living cells, plant roots assimilate all the material it is grown in. The oxygen is the rejected gas, and the carbonic acid gas, and power. The power of the bacterial process is enormous.

The only real unsolved problem, that was, was the problem of supplying carbon dioxide to the air in an industrial city of Manchester. That plants do not grow well in industrial cities is not due to the excess of gas, but to bad lighting, and to sulphuric acid, smoke, dust and other impurities in the air. Saussure proved this by comparative experiments with plants in ordinary air, in air containing different amounts of carbonic acid gas, and in air containing the same amount of carbon dioxide gas but with different lighting. He showed, plants grow best in an atmosphere containing 8 per cent of CO₂, 0.02 per cent of CO₂, or that added to air that is the average percentage of the air in the atmosphere.

Radical Result:

On the eve of the experiments of Fischer, Bornemann and Riedel no serious doubt existed. But the quantity of CO₂ actually available for plant growth is greater than the average percentage of the air. It is produced under the soil and in the fields as a result of the decomposition of organic matter. This gas is oxygen; a Swiss, Senebier, discovered that leaves give off carbonic-acid gas, and apply the carbon dioxide to the air. Saussure proved this, and proved it by feeding plants with air that contained more CO₂ than the ordinary air.

One thing the farmers were able to do with this excess of carbon dioxide gas was to increase the yield; and the cost of poison-gassing whole fields of wheat, corn and oats would be more than paid for by the additional value of the crop. For growth, in addition to the four chief elements mentioned, every plant requires nine other elements.

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electric fans. In the glasshouse for gassing forated tubes ten centimeters in diameter should be identical for gassed and ungassed sure that the soil, lighting and moisture into twelve-metersquares, the other higher, were laid two tubes, one low down, bent with CO2. Minute care was taken to in for cultivation in air artificially fertilized: in the most skeptical professorial the first two investigators; and the result obstacles of the kind that had hampered was a success which soon put an end to chief director Voegler granted to Riedel the vastelectro-mining trust which to-dayem out of the question. It was reserved for a first-rate engineer he had yet a great man scenes can be imagined on which in carbon fertilization were made carbonic-acid gas is the most effective on. But how much of this mixture is really available for the plants is not exactly known. In the air, part of the COs is speedily blown away by wind; and if there is no wind it is diminished. The glass houses the continuous feeding of in a 5 per cent mixture under pressure keeps this to a considerable extent. By this is explained the fact that in Fischer’s the greatest additional crop yield was obtained from plants grown under glass.

After the first year of success Riedel increased the dimensions of his experiments He built three more glass houses and added 40,000 square yards to the area of his fields. In the new fields he laid his perforated cement tubes underground. His aim was to supply the extra dose of gas from the lowest possible level, so that it would reach the leaf pores exactly as does gas set free from the soil. This diminishes the quantity of gas diffused upwards or blown away before it is caught in the pores; and the efficiency of the fertilization is very largely increased.

Riedel’s experiments embraced nearly all of the more important cultivated food plants, and also some flowers. Flower tests proved useful for study of the effects of gassing upon blossoms, and one of the first triumphs was a more than four-and-a-half-fold increase in the blooms of the heliotrope plant. In fields or in glass houses plants were sometimes in both, and also on a sufficiently large scale to produce reliable averages—barley, potatoes, fennel, lupines, soy beans, spinach, fenel, and the castor-oil plant.

Important Results

The first plantings, which covered only six of the plants mentioned, took place in 1917 in the middle of May. Four weeks later, when the first green shoots were above the soil, carbon fertilization began, and with it began the making of carbon dioxide and also the keeping of minute records. Within two or three days the differences between sizes and conditions of gassed and ungassed plants was seen. The difference invariably favored the gassed plant. It was at first confined to stalks and leaves; later, when blossoms and fruits appeared, the difference was even more marked; and finally the blooming of the root and tuber crops proved that the gassed plants were better by every part of the plant.

First and most important of results of gassing is the greatly increased leaf growth. The leaves of Riedel's gassed plants were larger and thicker. The leaves of mangel-wurzel gassed in the open air averaged in area 70 per cent more than the leaves of ungassed castor-oil plants had leaves 68 centimeters long; gassed plants had leaves 100 centimeters long. The gassed castor-oil leaves bore a whistling bloom similar to the bloom on peas. Leaves of gassed plants were unusually firm and resilient, and they were colored a deeper green, proving better assimilation and a richer production of the precious chlorophyll, the green coloring matter upon which the health of all plants, parasitic fungi excepted, depends.

This better leaf production in the early growth stage is especially important, because the leaf’s ability to absorb carbonic acid gas depends upon its size. Therefore is the fact—proved by Riedel—that interrupted the gas supply—that the young gassed plant with its abnormally large leaves extracts an extra dose of carbon also out of the ordinary air, so that carbon fertilization, with carbon dioxide lost, can continue for a few serious advantages. It is a great early growth period, largely increases the ultimate size and weight of the root, making the crop yield. Riedel found not a single exception to the rule that carbon fertilization materially increases the weight and size of fruits and roots. The smallest advantage of any gassed fruit or root crop ever measured was 15 per cent. In all instances the advantage was at least 36 per cent; often the advantage was more than 100 per cent, and sometimes it was more than 200 per cent. These figures were for the whole harvest, including roots and stems.

Riedel declares that carbon fertilization with other fertilizers growth more effectively than all the ordinary fertilizers when these are used without artificially supplied carbon. Ordinary fertilizers, he says, used in ordinary air increase an average crop by half a kilogram per square meter, which is 18 per cent of

Slip the strap through the head—no need to remove the blade

Twenty stripping devices for safety razors on the market to-day! Yet men still suffer the discomfort of fast dulling blades and the expense of constantly buying new blades! All because these stripping devices for ordinary safety razors must be bought and used separately.

But there is one easy way out! The Valet AutoStrop Razor sharpens its own blades on a straight leather strip. In ten seconds you get a new, keen edge for shaving morning after morning. No knack is needed. At the end of every stroke the blade slaps over of itself. Strops, shaves and cleans without removing the blade.

Save the money you spend on blades each year—the dozens of blades you pay for and soon throw away. With this razor you are guaranteed 500 comfortable shaves from every full package of blades. Ask your dealer to demonstrate the Valet AutoStrop Razor for you. Get it for your own hands and you will see why it means greater shaving comfort and greater blade economy than you have ever known.

VALET Auto Strop Razor
Silver plated razor, strap, year’s $5.00 supply of blades, in compact case

The Razor that sharpens its own blades

Saves constant blade expense
the crop, whereas carbon fertilization applied without the ordinary fertilizers brings an average increase of 40 per cent. This is the experience in fields, where results are less favorable than under cover. If a field gets both carbon fertilization and ordinary fertilization the average increase of crop is 52 per cent.

Riedel, Bornemann and Fischer draw from this the conclusion, valuable for all farmers, that fertilization with nitrates is usually overdone, and that part of the heavy cost is needlessly incurred. The full quantity of nitrates usually used could be taken advantage of by crops; but in practice it is not taken advantage of, because the supply of carbon is relatively too small. The dissatisfied farmer, however, often adds more nitrates at a time when he should be resorting to carbon fertilization, and so helping his crops to the more active assimilation which would enable them to use an abundant nitrates supply.

At first sight this theory is of no interest to the ordinary farmer, who is not yet in a position to say extra carbon by artificial means. But the three pioneers of the theory declare that it has a practical meaning, because carbon fertilization to a limited extent is within the reach of every farmer who is prepared to spend a few dollars on a barrel of carbon. This limited carbon fertilization is achieved simply by insuring that the soil is well supplied with organic matter, and by keeping the surface looser than is at present the rule.

The secret of natural carbon fertilization is merely the keeping of a continually loose surface and the prevention of incrusted production of synthetic air nitre.

THE SATURDAY EVENING POST
October 1, 1921

THE SPUR-AN ARROW COLLAR
FOR YOUNG MEN

For the Appreciative Taste
Johnston's CHOCOLATES

Backward farmers believe vaguely that by the carbonic-acid gas released by a continually broken surface and the prevention of incrusted surface. The increase of crops by poison gas, it follows, is no vision of remote scientific magic; it is producible by every practical farmer at very little cost. Carbon fertilization by artificial means on a great scale is another matter. All the three experimenters are optimistic; but they take different views as to the practicability. For the present only small operations are commercially possible, says Bornemann. Berry fruits, vines and vegetables can already be carbon fertilized with financial success. Fischer goes further. The waste gases of industry, he predicts, will soon be sent streaming through farmland plantations. Riedel has no doubt that even under present conditions conditions in crops can be carbonized with profit. For that, he admits, the carbonic-acid gas of commerce is too dear. Of the future he says: "Just as certain as we have to-day special plants for producing electric power, so we shall some day see works erected for the fertilization of our fields."

Costly and complicated these works will be; but they will be less costly and complicated than the equipment at present needed for production of synthetic air nitre.

SOME LIKE THEM COLD

(Continued from Page 19)

you was mad at me though I cannot think of any reason you should be. If there was something I said in my letter last that offended you why would you tell me what it was and I will ask your pardon though I cannot remember anything I could have said that could take credit at. But if there was something, why I assure you, Mr. Lewis, that I did not mean anything by it. I certainly did not intend to offend you in any way. Perhaps it is nothing I wrote you, but you are worried on account of the publishers not treating you fair in regard to your song and that is why your letter sounded so distant. If that is the case I hope that by this time matters have rectified themselves and the future looks brighter. But any ways, Mr. Lewis, don't allow yourself to worry over business cares as they will all come right in the end and I always think it is silly for people to worry themselves sick over temporary troubles, but the best way is to "keep smiling" and look for the "silver lining" in the cloud.

Remember also, Mr. Lewis, that $60 is a salary that a great many men would like to be getting and are living on less than that and supporting a wife and family on it. I always think that a person can get along without a great deal of extra money as long as he is weather proof as I have been out in a rain storm round the house. We are going to live in a hotel till we find something better but will not feel comfortable until I know I am able to see them before they get to the big town. As for her being a slave, I would hate to think of it all the more now that she has married me and then I have them spend their lives in druggery round the house. We are going to the hotel and she will be able to see them to see them get to the big town. As for her being a slave, I would hate to think of it all the more now that she has married me and then I have them spend their lives in druggery round the house. We are going to the hotel and she will be able to see them to see them get to the big town. As for her being a slave, I would hate to think of it all the more now that she has married me and then I have them spend their lives in druggery round the house. We are going to the hotel and she will be able to see them to see them get to the big town.

Well girlie I may write to you again once or twice more. I don't make her read the answers but that is all I can think of to say. I don't know what she uses but it is weather proof as I have been out in a rain storm and we both got drowned but her face stayed on. I would almost think it was real, but I don't. Well girlie I may write to you again once or twice more. I don't make her read the answers but that is all I can think of to say. I don't know what she uses but it is weather proof as I have been out in a rain storm and we both got drowned but her face stayed on. I would almost think it was real, but I don't. Well girlie I may write to you again once or twice more. I don't make her read the answers but that is all I can think of to say. I don't know what she uses but it is weather proof as I have been out in a rain storm and we both got drowned but her face stayed on. I would almost think it was real, but I don't. Well girlie I may write to you again once or twice more. I don't make her read the answers but that is all I can think of to say. I don't know what she uses but it is weather proof as I have been out in a rain storm and we both got drowned but her face stayed on. I would almost think it was real, but I don't. Well girlie I may write to you again once or twice more. I don't make her read the answers but that is all I can think of to say. I don't know what she uses but it is weather proof as I have been out in a rain storm and we both got drowned but her face stayed on. I would almost think it was real, but I don't. Well girlie I may write to you again once or twice more. I don't make her read the answers but that is all I can think of to say. I don't know what she uses but it is weather proof as I have been out in a rain storm and we both got drowned but her face stayed on.