

London With Lid Off



TOWER BRIDGE, LONDON

A Londoner goes to Italy for a holiday, visits Rome, and comes back brimming with information about the catacombs. One wonders if an Italian, visiting London, learns anything of its subterranean marvels, for certainly the Londoner himself remains woefully ignorant of all the amazing systems of tubes, tunnels, drains, sewers, cellars and the like, which honeycomb the ground beneath his feet, and compared with Rome's catacombs, are as a child's toy to St. Paul's cathedral.

Take an instance in point, says the London Weekly Telegraph. For more than two years, from 1909 to the beginning of 1911, a considerable area of the Strand behind St. Mary's church was inclosed by a gigantic hoarding. Literally millions of people must have passed and noticed that hoarding, but how many ever gave it a second thought? Yet if they had chosen to investigate they would have found that it inclosed an immense shaft leading down to one of London's greatest drains—a huge, low level culvert running all the way from Hammersmith to Bow, a distance of some twelve and a half miles, and costing more than three-quarters of a million to construct.

Two Thousand Miles of Drains. This drain, which is now completed, gives London a total of 352 miles of main drains, which are linked up with a tremendous network of smaller drains having a length of over 2,000 miles. Their outfalls are at Barking and Crossness, where are immense pumping stations capable of dealing with some 15,000,000 gallons of sewage in the course of the 24 hours.

In Paris one of the recognized sights of the city is its sewers, but who dreams of inspecting the far more wonderful sewers of London, the winding serpents of a length almost sufficient to stretch from London to Edinburgh, and which guard the health of over six millions of people? They cost \$55,000,000 to construct and \$1,200,000 yearly to care for, yet the money is well spent, for, since 1870, the death rate of London has dropped from 24 to 14 per thousand.

All day and all night, all the year round, work goes on ceaselessly in the wonderful subterranean world of the sewers. An army of sewer men in high thigh boots wade in the swiftly running fluid and work in the close, hot air of the deep dug tunnels.

Through these sewers now run what were once navigable rivers. The Fleet, for instance, up which barges and pleasure galleys once made their cumbersome way, at present runs about four feet below the surface of Farringdon street and New Bridge street. The tunnel through which the river flows is big enough for the passage of an omnibus, yet in wet weather its bore is not sufficiently large to carry off the storm water, as flooded basements in Tudor street and the neighborhood testify. When there are high tides in the Thames the "tidal flaps" at Blackfriars bridge are held back by pressure of water, and at such times they say that, were a five foot spike driven into the middle of New Bridge street, the pent-up water of the Fleet would rush up in a jet as high as Ludgate Hill station.

Queer Finds in Sewers. Strange things are found by the men who delve in the depths, digging London's sewers. In making the Bucklersbury sewer the excavation ran suddenly into a large natural cave, though how formed it is impossible to tell. As for relics of past days, the London county council has a collection of these and a very interesting little museum it forms. Here are tusks of the mammoth, the gigantic long haired elephant that once roamed the great marshes where London now stands. Here are bones of early British cattle and a perfect skull of a prehistoric Londoner who shot game with flint.

FRANCE TO SEE BLACK ARMY

Part of Colonial Force of 140,000 Negroes to Come to Paris for View of Frenchmen.

Within the last six years France has raised a black army approximating 140,000 men and the ministry of war and the colonial ministry are now preparing a plan for giving Paris a chance to see the black soldiers at the national review on July 14.

It is proposed that each section—the Senegalese, the Madagascar troops and others—shall send a delegation, and that President Poincaré shall present each regiment with its flag.

The first Senegalese regiment, which has its flag already, will receive the insignia and the Legion of Honor, which decoration was recently gazetted.

France's black army has been brought into being by Colonel Mangin, who was, when a captain, second in command of Marchand's famous mission to Fashoda in 1899.

ipped arrows in the days when Stonehenge was the religious center of England. Some wonderful shells of giant and long extinct nautilus, so perfect that their sheen is still preserved, prove that the site of London was once covered with a warm but shallow sea. As for pottery of all ages, there is any amount of it, and many other relics as well, the whole giving a sort of history in kind of London from the earliest ages up to today.

But the sewers, wonderful as they are, constitute only a very small portion of underground London. The subways are probably even less familiar to the man who walks the streets. Everyone knows Lollborn viaduct, but how many are aware that through the iron gates just beneath the bridge is the main entrance to that part of subterranean London which is nearest to the surface.

So near to the surface are these subways that their silence is disturbed by a low murmurous hum which is the roar of traffic a few feet overhead. Through the subways run immense pipes. The biggest are the mains of the water board. There are others which belong to the hydraulic power supply, working lifts in thousands of tall buildings. Gas pipes, too, are everywhere. Postboxes of telegraph wires belong to the general post office; others, carefully insulated, to the electric lighting companies. Overhead are the tubes through which, by air pressure, written telegrams are blown from the district offices to St. Martin le Grand.

These underground streets are well paved and lighted with gas, and they bear exactly the same names as their counterparts overhead.

HEALTH IN DEEP BREATHING

One of the Most Important Considerations for Man Who Would Work to Full Capacity.

No piece of advice that the physician can give will bear more frequent repetition than the pithy sentence: "Breathe deeply." It is a perfectly simple rule of health, yet it is constantly broken. There is no reason why our lungs should not have all the fresh air they need for their work; the supply is unlimited. But in our folly we refuse to give them their fair share of it, because we are too lazy to breathe deeply.

We go on from day to day, drawing in little, inadequate puffs of air, living from hand to mouth, as it were; and then we wonder why we feel tired and nervous.

There are two ways to learn to breathe. If our powers of self-discipline are poor, as is the case with most insufficient breathers, it is a good plan to join a gymnasium or calisthenic class and learn to use the lungs as a baby learns to use its feet and hands. But remember that lessons in breathing do no good if the scholar thinks he is absolved from his task except when he is in the class.

A simpler method for those who have not time or opportunity for the gymnasium is to turn life's daily routine into a continuous discipline in breathing. If the poor breather takes the trouble to watch himself carefully he will find that when he is engaged upon any work that calls for close attention he does not even breathe as deeply as usual; he almost invariably holds his breath.

Lears to make a breathing lesson of dressing in the morning, of going up and down stairs, of your duties in household, office or shop, of your walks, your games and your rest. Draw in deep draughts of air every time you take a breath and every little while stop everything else and fill your lungs a few times with breaths that test their capacity. You will be surprised to see the improvement that it will make in your general condition.

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THE AMERICAN HOME

W. A. RADFORD EDITOR

Mr. William A. Radford will answer questions and give advice FREE OF COST on all subjects pertaining to the subject of building, for the readers of this paper. On account of his wide experience as Editor, Author and Manufacturer, he is, without doubt, the highest authority on all these subjects. Address all inquiries to William A. Radford, No. 178 West Jackson boulevard, Chicago, Ill., and only enclose two-cent stamp for reply.

We will all agree that the bungalow marks a great improvement in summer resort architecture. As a summer cottage, whether located in the mountains, on the edge of a forest or by lake or river, the graceful, informal lines of the bungalow seem to adapt themselves ideally to their environment. When contrasted with the old-time, box-like, jagged ornamented affairs that were known as summer cottages, the improvement is very apparent. Commenting on this matter, the well-known architect, Wilson Eyre, brings out some valuable points in a recent number of Country Life in America. His contention is that the bungalow has been carrying us to architectural extremes that are not good for domestic architecture in general.

As a style for general suburban use the bungalow appears to be misused and is generally objectionable when so used. As already mentioned, it has its place and purpose; first, as a week-end or summer retreat it forms an ideal contrast to our more pretentious, over-luxurious dwellings; second, it is a harmonious building for an informal location; third, when an inexpensive structure is desired the bungalow offers the maximum comfort and beauty for the minimum cost.

Because the bungalow is so widely misused and misunderstood, it may be well to try to answer the question, What is a bungalow? and to analyze

its real purpose in the general scheme of American home building.

The term bungalow is one which is variously applied to rustic camps, to one-story seaside cottages, low, broad one-story dwellings and even to two-story houses built on broad, extended lines with a low pitch to the roof. It is not, however, properly used when applied, as is so often done, to houses having livable rooms in the second story.

This authority does not believe in general in the one-story house for an all year dwelling. It is a fact which, like mission furniture, is being much overdone. It is supposed to be the up-to-date fashion in many localities; but

one floor, than by piling them up on top of each other. A five-room, two-story house built for \$1,500 or \$2,000 must necessarily be a plain, uncompromising cubical box. If these same five rooms were to be grouped on one floor, the unpleasant square proportions are avoided, the angle of the roof becomes more pleasing and the whole effect more graceful, with no additional cost.

A very good illustration of what is meant by this is shown in the accompanying perspective and plan. This is a five-room cottage, 30 feet 6 inches in width by 40 feet 6 inches long. It has been successfully built for \$2,000. It is appropriate not only for summer cottage use, but also for rural or suburban site where a small, home-like dwelling is desired for use the year round. It has just a suggestion of the bungalow style, just enough to give it attractiveness without making it look out of place.



as with many so-called fashions, there is little reasonable excuse for its prevalence. Like many fads, it is bound to run its course and there is nothing so dimly out of place as a fad that has ceased to be.

There is another fact regarding the bungalow which has become current and that is that a one-story house is cheaper to build, and in other ways more economical than a two-story house. The increased expense of floors and roof counter-balance, however, the less expense of the wall, plumbing and lighting are but little cheaper, if any; and because the structure is spread out it is not so easy to heat as its advocates would have us believe. Moreover, the bungalow takes up more ground than a

hotel in Melbourne spent \$5,000 per annum on its free lunches and made a handsome profit on the transaction.

Slow. The Learned Professor—"You know, Mrs. Bloogs, it seems a shame to take your boy away from school at such an early age. I myself didn't finish my school education until I was nineteen."

Mrs. Bloogs—"Well, some children is quicker at pickin' up things than others."—Punc

SOME HELPS FOR THE LAND HUNGRY MAN



Milk cow may be kept up during dry seasons when pastures fail by the use of crops such as sorghum, millet, rye and other crops of this nature sown at short intervals earlier in the season.

(By W. J. SPILLMAN, Chief of United States Bureau of Farm Management.)

Near the larger cities it would probably be better to grow some of the more perishable truck crops and to keep one horse for marketing purposes, but in most country places the system as outlined here would be more satisfactory and would require only two horses.

In addition to four cows and two horses the owner of such a farm could keep one or two brood sows and fifty hens.

Assuming that the farmer understands his business and is on a soil and in a region adapted to the type of farming here outlined, it ought to be possible on such a farm to secure an income somewhat as follows: The five acres of potatoes ought to produce five hundred bushels at least, and if the man is a good potato grower the field can be made to average more than two hundred bushels.

One ought to average at least fifty cents a bushel for the potatoes. This would make \$250 for this field. The three acres of cabbage ought to produce \$300, and the two acres of onions ought to produce \$300. The onions require a good deal more work than the other crops, hence, the smaller acreage of them. After the farm is started the farmer must be guided by his experience, and it might prove wise to put the entire five acres in onions, provided labor is available.

If the four cows kept are good ones—and the farmer is not justified in keeping any other kind—one of them ought to furnish dairy produce for the family, and the other three, if properly managed, ought to produce seventy-five dollars worth of dairy products apiece a year, making two hundred and twenty-five dollars income from the dairy.

It ought to be possible to produce twelve pigs to sell at an average price of fifteen dollars each, making one

hundred and eighty dollars from this source. The fifty hens ought to produce what eggs and poultry the farmer needs and furnish fifty dollars worth of material for sale. Adding these sums together gives us one thousand three hundred and fifty dollars as a possible income from such a system of farming.

From this income all the expenses of running the farm and of the family living must be paid, but with half an acre of garden, an acre and a half of orchard, and with all the potatoes, cabbage and onions the family can consume, with hoes for meat, and with the eggs and poultry the family living ought not to cost more than two or three hundred dollars for things bought.

The city man must not get the idea that he can start in a system of this kind without experience and make a success of it from the start. It will mean a lot of very hard work, hard living and hard study for two or three years, and of these three things study is the most important. On the other hand, the man who thoroughly understands his business can increase the income here estimated very materially.

One other very important consideration in connection with a farm of this kind: It is assumed that it is near enough to a town or city to permit the farmer when he is carrying his potatoes, cabbage and onions to market, to bring back with him on each trip a load of manure for use on the farm.

Where this can be done such a farm could be made highly fertile. The places to put manure in such a system would be just after the potatoes, just before either of the corn crops, and in the fall of the year manure could be put on the clover field which was used for pasture during the summer. This field should then be plowed late in the fall in preparation for potatoes in the next year.

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POISONS FOUND IN SOME PLANTS

Bundles of Oxalate Crystals Are Offensive to Rabbits and Snails.

(By MYRLE IRONS.)

The part played by the powerful chemical substances secreted in the various parts of many plants is imperfectly understood. Free prussic acid in some plants is the remarkable discovery made not long ago, and now Professor Peche has concluded that in the cherry laurel this acid is stored in various tissues as a reserve plant food. Other German biologists have been seeking to prove that various plant poisons give protection against enemies. Results have been obtained by Prof. W. Peyer tending to show that the various acids, oils, alkaloids, glucosides, and other chemicals of plants are poisonous or offensive to rabbits, snails, insects, and other creatures.

In the pastures the plants yielding medicinal oils are avoided by both grazing and wild animals. The acid bearing plants such as are used for human food as salads, are poisonous to snails and slugs, and are protected nearly as effectually against rabbits. Beans, peas and lentils contain some unknown poison that causes rabbits and mice to refuse the seeds until the active principle has been removed by several washings. An acid product of seedling roots—such as maize, oats and rye—repels snails, as do hairy stalks and sticky surfaces, and plants having bundles of calcium oxalate crystals are offensive or poisonous not only to rabbits and snails but even to man.

Important Industry. Few people realize how many thousands of people are engaged in the raising of pigeons, both for the market and the show room. It is an important branch of the poultry industry, and is becoming more and more popular each year.

Profit in Pork. While pork can sometimes be made at a profit when corn is supplemented with nothing but a concentrated feed, still it is not wise to use concentrated supplements alone.

Profitable Crops. When clover can be grown at all, profitable crops can be grown, and all kept up by clover and lime.

Careful With Team. Don't fall to be careful when around autos or steam cars with the team. Leave plenty of space between you and them. Any chance taken merely to "show off" may mean serious damage or loss of life.

Early Marketing. When mutton can be produced at the same or less cost per pound than beef, the fleece is clear additional profit; as with all food animals, the greatest profit is in early maturity and early marketing.

Leather Gloves Necessary. Strong leather gloves are a necessity to the man grubbing bushes, working in stone, etc., for wounds are sure to occur.

GIRL SUFFERED TERRIBLY

At Regular Intervals—Says Lydia E. Pinkham's Vegetable Compound completely cured her.



Adrian, Texas. "I take pleasure in adding my testimonial to the great list and hope that it will be of interest to suffering women. For four years I suffered untold agonies at regular intervals. Such pains and cramps, severe headaches, sickness at stomach, then finally hemorrhages until I would be nearly blind. I had five doctors and none of them could do more than to relieve me for a time."

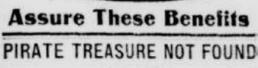
"I saw your advertisement in a paper and decided to try Lydia E. Pinkham's Vegetable Compound. I took seven boxes of it and used two bottles of the Sanative Wash, and I am completely cured of my trouble. When I began taking the Compound I only weighed ninety-six pounds and now I weigh one hundred and twenty-five pounds. If anyone wishes to address me in person I will cheerfully answer all letters, as I cannot speak too highly of the Pinkham remedies."—Miss JESSIE MARSH, Adrian, Texas.

Hundreds of such letters expressing gratitude for the good Lydia E. Pinkham's Vegetable Compound has accomplished are constantly being received, proving the reliability of this grand old remedy.

If you want special advice write to Lydia E. Pinkham Medicine Co. (confidential) Lynn, Mass. Your letter will be opened, read and answered by a woman and held in strict confidence.

Pure Blood

is the result of Perfect Nutrition which proceeds from GOOD DIGESTION



Assure These Benefits

PIRATE TREASURE NOT FOUND

Well-Furnished Expedition Returns Without the Riches It Had Been in Search Of.

The treasure-hunting party from Plymouth, England, which has been searching Cocos Island in the Pacific for treasure supposed to have been buried there by pirates many years ago, has arrived at Panama on board the steamer Melmore without the hoped for pirate spoils. The Melmore sailed from Barry in September last, carrying, in addition to the officers and crew, two London ladies, and three gentlemen financially interested in a venture which was fondly hoped to return 100 per cent profit.

Two other unsuccessful attempts to locate the buried gold and jewels of the buccaners made by Earl Fitzwilliam and Mr. Harold Gray did not diminish the faith of the members of the Melmore expedition, who declared they had specific information of the exact position of the accumulated hoards.

One treasure was actually brought from Lima in 1829, consisting of gold bullion and articles to the value of about \$25,000,000, and the other treasure, which is placed at an even higher figure, was taken to Cocos Island by the famous pirate Bonito. Despite the care with which the Melmore was fitted out—the expedition was estimated to cost \$500,000—the search appears to have been fruitless.

Sincere Had Lasted Long.

Pensions are not the only things commanded and forgotten. An illustrious member of the British house of commons was struck one day by the presence of a policeman in one of the lobbies. He wondered why this particular lobby should always have a guardian strolling up and down and made inquiries. The records of the house were searched and it was found that fifty years previously when the lobby was being decorated, a policeman had been stationed there to keep members from soiling their clothes. The order never having been countermanded, the constable had kept his beat for half a century.

An Instance.

"There is nothing in analogy." "Why not?" "Because if there was, if a Colt is a little horse, wouldn't a Colt revolver be a little horse-pony?"

There's nothing platonic about a man's love for himself.

Women may look good without being accused of good looks.

Mrs. Winslow's Soothing Syrup for Children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. 25c a bottle.

What a woman doesn't know about a neighbor is just what she wants to find out.

Dr. Pierce's Golden Medical Discovery

promotes the flow of digestive juices, invigorates the liver and purifies and enriches the blood. It makes men and women strong in body and active in mind. Ask Your Druggist