

GRAVEL FOR ROOFS

Every once in a while the citizen hurrying to his work has a smell of resin and tar carried to his nostrils and knows that a gang of roofers is at work in the vicinity. Sometimes he sees little wooden pails of gravel being hoisted to the top of a building, and if it is during the hot weather he momentarily sympathizes with the men who are waiting above to receive the gravel but if someone should tell him it takes a million dollars worth of this kind of work to keep the roofs of downtown Chicago in good repair and build new ones he would be considerably surprised. Also, if he could go to the top of a building and see the crew of an honest gravel roofer at work, he would be further surprised at the thoroughness with which the work of putting the roof on one of the large downtown skyscrapers is conducted.

Formula for Composition.

Here is the formula for a gravel and composition roof as laid down by an "honest" roofing contractor: First, there is laid one layer of heavy Irish flax felt, that is really imported from Ireland. This a paper many times thicker, stronger and infinitely more enduring than the felt that is to be obtained in the domestic markets. The first layer is sealed to the roof proper by a coat of resin composition. On top of the flax felt are laid four layers of heavy woolen felt, each layer mopped over the entire surface with the sticky composition that is seen in the roofers' kettles in the street. Then comes the "cap sheet," making five sheets of felt in all. The edges of this foundation are then fastened with strips of galvanized iron or copper, secured to the walls by means of wall hooks. The surface of the roof is then swept entirely clean and coated with a heavy coat of the resin composition, and this is sprinkled with clean, screened gravel that will pass through a 3/4-inch mesh. The roof is again swept and a second coat of the composition applied to the gravel, and the result is a roof almost impervious to the elements and guaranteed to the good for ten years.

This is the tale of a gravel roof as put on by the honest contractor. But there is another side to the tale. There is the roofer who believes that what "no one don't know won't hurt them," and who, after having secured a contract on specifications calling for work similar to that described, hastens his crew through the job and finishes it before the owner comes to inspect it. Then the owner sees the clean gravel and the solid composition on top, and pays for the work, when if the truth were known he would toss the contractor into the surrounding atmosphere. For the dishonest roofer, and he is numerous enough to hurt seriously the honest one, is likely to put almost any old thing in the layers of paper that go under the final covering of gravel. Then the owner is moved to curse when, in a couple of years he is forced to pay for a new roof.

Save in the outlying districts, where the smaller houses are shingled, or in cases where the pitch of the roof is too steep for the use of anything but tile or slate, gravel composition is the favored style of roofing. It is estimated that at least 90 per cent of the buildings of Chicago are now covered with

this kind of roofing. Tile, once popular, has been superseded, as has been slate and tin, and when a new building is now put up it is a certainty that it will have a gravel roof.

The change from the three styles of roof mentioned has not been gradual, coming with a rush immediately after it was discovered that gravel is a better protection against fire, besides lasting longer and in better condition than the others. Then the underwriters' association indorsed gravel roofs, and among the builders the underwriters are the great power to be regarded.

In the fire tests it was discovered that a well made composition roof lasted just twice as long as tin, tile or slate. The tin buckled and bent and the soldering melted at the first feel of fire, the tile and slate cracked, but the solid composition roof, with its six layers of heavy felt, stubbornly refused to let the fire through it, until its superiority was proved beyond question.

As to durability, one Chicago firm put a gravel roof on the old Tremont House when it was rebuilt, immediately after the great fire, and the roof lasted with a few repairs for thirty-two years, when it was removed in an alteration of the building. Ordinarily however, the life of a gravel roof may be said to be ten years. After that, it will, in the majority of cases, have to be recoated. In this process the old gravel and top coat of composition is scraped away, holes and loose spots in the felt are carefully repaired and the whole given a clean coat of composition and gravel, the same being guaranteed for a period of three years. With this done whenever a roof appears to need it, it is declared that it never is necessary to put on an entirely new roof.

Workers Well Paid for Labor.

The workers in this line are well paid, much better than their skill or special knowledge would seem to justify. Fifty cents an hour is the scale of pay for all men engaged on a job, whether as workers on the roof or merely in the manual labor of pulling a rope attached to a gravel bucket, with the exception of the foreman, and he is paid 60 cents. There is a foreman with each crew. During the hot weather the roofers may be said to earn all they get. Up 100 or 200 feet from the ground, and working under a broiling sun, with no possible chance for protection, it is little wonder that the roofers contribute considerably to the heat prostrations, or that they are forced to lay off in the extremely heated spell.

The equipment of a roofing firm, even of the largest, is not necessarily an expensive one. Wagons, horses, kettles, and tools seldom invoice over \$3000, and men with this investment often do \$50,000 worth of business in a year.

A LIVING NET.

Peculiar Method of Fishing Used by Natives of Oceania.

A peculiar method of fishing is indulged in by the natives of Tetulia, one of the islands of Oceania. At a given signal the inhabitants of the village assemble on the seashore to the number of about 200 persons, each of whom carries a branch of cocoa palm. With these in their hands they plunge into the water, and at a certain distance from the shore turn toward it, forming a compact half circle, each one holding his palm branch perpendicularly in the water, and thus forming a sieve.

The leader of the party then gives a signal, and this living net approaches the shore gradually in perfect order, driving before it a multitude of fishes. Surrounded by this living wall and entangled in the cocoa palm branches many of the fishes are cast on the sand by the waves, while others are killed with sticks. After being cooked over hot coals the fish are served with bananas and coconut milk.

The scene as described by a Frenchman who visited the island was interesting and picturesque in the extreme, the effect being immensely heightened by the appearance of the natives, whose costume consists of a short tunic of seaweed or leaves. Their hair is powdered with chalk, while the warriors are distinguished by the hair being powdered red. Wreaths of gardenias or red hibiscus are worn on their heads, also round their necks.

Odd Origin of an Epidemic.

In a house in the English town of Exeter sat two men. One of them informed his companion that the last time he was in the town he suffered from smallpox in that very room. "In that corner," he said, "was a cupboard where the bandages were kept. It is now plastered over, but they are probably still there." And he took a poker, broke down the plaster and found them. From their "find" the two men contracted the disease, and it spread through the town and worked fearful havoc.

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AN EXPERT ON LYING.

He Was Allowed to Testify in Court and Won the Case.

A Kansas City lawyer tells of the use of expert testimony on lying. He says:

"I was prosecuting attorney for Finney county in 1881, and had a fellow up before Squire N. C. Jones on the charge of horse stealing. He hired Mike Sutton to defend him, and when the case was called I proved beyond question by a witness who witnessed the theft that we had the right man. After the prosecution had rested Sutton introduced 'Buffalo' Jones as a witness and gravely informed the court that he intended to prove by him that my witness had lied. 'Buffalo' took the stand and swore that, while he had never seen or heard of the witness before and knew nothing at all about the crime committed, he had had a great deal of experience with men and could tell pretty certain when they were lying. Then he proceeded to tell how men acted when they were lying, and gave the expert opinion that my

witness had sworn to lies from the word go. I protested against such performances, but Sutton made the judge believe he had as much right to introduce an expert on liars as he would have to introduce an expert on medicine or any other science, and the result was the thief was dismissed from custody."

Evidence.

"The duke is dead in love with her, isn't he?"

"He is prepared to lay all his liabilities at her feet."—Life.

The Simple Life

is best. To live naturally; work during the day, keep your temper, eat three meals and take a Beecham's Pill regularly, as required. There is no medicine for the simple life, or the strenuous, like

Beecham's Pills

Everywhere. In boxes 10c. and 50c.

CRAWFORD PEACHES FOR CANNING

Now is the time to put up your peaches, and we have the best in the market.

A. L. Harvey

PHONE 1981

Cor. Court and High Sts.

WAR!

A state of war exists in this country between the modern up-to-date gas range and antiquated out-of-date coal and wood stoves.

Annihilation of the enemy---The army of wood and coal stoves utterly routed. Women emancipated from the thralldom of feeding the voracious, never satisfied, wood and coal monsters, whose enormous, costly fuel appetites cry incessantly for more. The gas range is simplicity itself. Hot water apparatus if you want it. Pay for it by installments if you like. It's fixed in a jiffy. Strike a match, it's on. Turn of the hand It's off.

Enlist in the mighty army of the glorious emancipated women. Come in and talk it over, That doesn't commit you to buy.

Big reduction in gas. On and after September 1s the price of gas for all purposes will be \$2.00 per 1,000 feet

Heart Weakness.

Dr. Miles' Heart Cure has made many hearts well after they have been pronounced hopeless. It has completely cured thousands, and will almost invariably cure or benefit every case of heart disease.

Short breath, pain around heart, palpitation, fluttering, dizzy, fainting and smothering spells should not be neglected. Take Dr. Miles' Heart Cure and see how quick you will be relieved.

It cannot make a new heart, but will restore a sick one by strengthening the heart nerves and muscles, relieving the unnatural strain, and restoring its vitality.

"I had a very bad case of heart trouble. For six months I could not work. Last July I was plowing corn and feeling bad all day; in the afternoon in plowing one row I had to lay down, or fall down, three times. My heart throbbed as though it would burst through, and I had difficulty in getting my breath. I purchased a bottle of Dr. Miles' Heart Cure, and before I had used half of it I could lay down and sleep all night. Previously I had to get up from five to ten times a night. I have taken several bottles, and my heart is as regular as clock work. I feel like a new man, and can work considerably for an old man, 54 years old."

H. D. McCall, Frost, Ohio.
Dr. Miles' Heart Cure is sold by your druggist, who will guarantee that the first bottle will benefit. If it fails he will refund your money.
Miles Medical Co., Elkhart, Ind.

CITIZENS' LIGHT & TRACTION CO.

A. WELCH, Manager.