

# POOR DOCUMENT

## PLASTER AND ITS USES.

Plaster or gypsum is sometimes a very useful fertilizer, and sometimes it is used without any apparent benefit at all. How plaster really acts is one of the unsolved mysteries of agriculture, and will probably remain so, because there are cases in which its effects are far beyond any explainable possibility of its simple elements, and in other cases it exerts no appreciable effect whatever. It has been stated that plaster is useful in supplying moisture to plants, and it is thus beneficial in a dry season. Thus, a horticultural journal recently informed its readers that "stone plaster is beneficial in times of drought to retain moisture, but as a fertilizer it is of no great value." Now this statement may be set down, in passing, as a great absurdity and a great error combined, for it can readily be shown that plaster can not possibly imbibe any moisture more than it naturally has any more than a wet rag can, and that it has been used as a fertilizer with great benefit by many of the best farmers in the country. Other statements are made to the effect that plaster takes up ammonia from the atmosphere, and others that it should always be applied to the leaves of plants, but for what reason any more than that a man should apply his food to the hair of his head is not explained.

Few persons who use it really know what sort of a substance plaster is, nor of the behavior of its elements when these are brought into new combinations. It is a combination of lime 35 parts, with sulphuric acid 45 parts, and water 20 parts, in round numbers. The water exists, as water of crystallization, and not as absorbed water; and when it is removed by exposure to heat, the crystalline texture of the plaster is destroyed and it falls to a fine powder, which is then in the condition in which it is used by masons for plastering, for hard-finishing walls, and for a cement.

Calcined plaster is not used as a fertilizer, but only the raw kind, which already contains as much water as it is possible for it to hold, and as this water is fixed and cannot be separated except by considerable heat, it is clear that it cannot be made available for a crop. Another popular error prevails in supposing that plants absorb moisture and nutriment by their leaves, and wrongly considering that plaster affords a copious supply of water in the driest times, procured from some mysterious and unmentioned source, this moisture is taken in by the leaves of the plants with whatever of the plaster may be dissolved in it. Plants, however, take in no water or other nutriment except by their roots, and to put the plaster on the leaves is of no benefit or use whatever, any more than to scatter so much sand or dust, excepting that when the plaster is washed by the rain from the leaves it finds its way to the ground and from the soil to the roots of the plants.

Plaster is easily decomposed by ammonia. Its sulphuric acid has a great affinity for ammonia than for lime, and leaves the lime and ferrous sulphate of ammonia when the plaster and ammonia are brought into contact in solution in water, and in no other way. The ammonia is usually combined with carbonic acid, and this acid has a stronger affinity for the lime than for the ammonia, and as, while sulphate of ammonia is formed by the mixture above mentioned, carbonate of lime is also formed at the same time, and a mutual exchange and recombination are produced. This effect may possibly happen to a small extent, but it is an unnecessary service altogether, because ammonia is excessively soluble in water, to the extent of 700 parts in 1, and wherever ammonia may be floating about loose in the atmosphere, or formed in the soil by the decomposition of organic matter, it is immediately arrested and held by the moisture, and is immediately available for plant food. That is, if ammonia is a plant food at all, which is a doubtful assumption, because it is more than probable that ammonia is first changed to nitric acid before it becomes fit food for plants. But this is immaterial, considering the doubtful nature of the popular idea regarding the absorption of ammonia by plaster.

Plaster is a valuable fertilizer. There is no doubt of this; and upon some crops and upon some soils it acts with marvelous effect. For clover, peas, corn, oats, and grass it often produces such effects that one is puzzled to account for it. Whether it is the lime or the sulphuric acid, or the gypsum itself, has not yet been satisfactorily shown. It is known that crystals of gypsum are found in the sap of clover and some other plants, but whether these are normally present or accidentally so, from a redundancy of the elements of the sulphate of lime which have entered into combination in the juices of the plants has not yet been explained. Mr. George Geddes, the well known farmer of western New York, has kept a part of his farm, which is too distant from the barns to draw manure there profitably, in a state of high fertility by the regular use of plaster upon clover, and the plowing in of a clover soil for a wheat crop. Some soils, however, refuse to respond to an application of plaster; but these cases are exceptional, and in general plaster is very beneficial. Its best use probably is as a deodorizer in stables to take up the ammonia so freely formed there by the decomposition of the urine, and change it to innocuous sulphate of ammonia, which is retained in the manure, to the considerable enrichment of the latter. The plaster not only then serves a useful purpose in the stable, but it goes into the soil with the manure in a state of combination in which it may do more good than if applied alone and in its raw state.

Plaster is usually applied in the Spring, and as it is quite soluble and is soon carried into the soil and distributed by the rain, it should be applied at the beginning of the growing season, when vegetation has taken an active start.

LEO XIII. CONSIDERING THE SUBJECT OF QUITTING ROME.—The Paris correspondent of the Times affirms positively that Leo XIII. has sounded the governments of Europe upon the subject of quitting Rome, and has ordered arrangements to be made in the Vatican by which he could depart within twelve hours. It is probable that the first object of these *pourparlers* is to alarm the governments, but there is seriousness in them, too. Ever since the attack upon the procession conveying the body of Pio Nino, the Pope has believed that the Italian guarantee was not perfectly honest, and that on some unhappy day the dignity of the Holy See might suffer violence at the hands of a mob. It would then be needful for his Holiness to take the dignity of his office, as well as its freedom. The contingency is not very likely to occur, but the incidents referred to certainly revealed a new spirit in Rome, and the Vatican has considered many possible retreats. The favorite one used to be Malta, but old Cardinals dislike sea-sickness, and now Monaco, a place in the Tessin, and another in Austria, are discussed with approval. If such a project ever quits the domain of conjecture, we venture to predict that the purchase of Monaco, the independent sovereignty of the Grimaldis, whose line ends, we fancy, with the present man, will receive earnest attention. Monaco is within the climate and language of Italy, and the House, as a recent law suit showed, has unexplained influence in Rome.

THE LADY OF THE WHITE HOUSE.—It is quite time that the White House began to be occupied, and it is therefore cheering to be told that President Arthur took possession yesterday, and that Mrs. John Davis, the daughter of ex-Senator Frelinghuysen, is probably the lady who will reside there. Mrs. Davis is wife of the gentleman who is to be President Arthur's private secretary. It will be remembered that Mr. Davis is nephew to Mr. Bancroft, Secretary of State, and that ex-Senator Frelinghuysen is to be made Secretary of State. One of the disadvantages of the President's being *gambler* or a widower is the difficulty of finding any one able and willing to perform the delicate and difficult duties which would naturally devolve on the President's wife. This question has generally been solved by the selection of the lady nearest of kin to the President, and events have proved that, even in cases where the previous knowledge of what might be termed official and diplomatic life was limited, a little experience presently conferred the necessary ease. In the case of Mrs. Davis, it is not improbable that the lady will bring to the dignity of her new position an intelligence gained by long intimacy with the social routine of the nation's capital.—*N. Y. Evening Telegram.*

TO QUEEN VICTORIA.—On the Sunday after the death of President Garfield, Rev. James S. Hoyt, pastor of the Prospect Street Congregational Church, Cambridgeport, preached a memorial sermon. His congregation was so pleased with it that through a committee headed by the Rev. Asa Ballard, they obtained the manuscript and published it in next little volume, which has been largely circulated in the parish. The sermon contained numerous references to Mrs. Garfield and to Queen Victoria, which expressed so eloquently and touchingly the feeling of the people of the church and the community toward these noble women, that the publication committee ventured to send a copy of the sermon to each of them. These special copies were richly bound in black morocco and forwarded. The same day that Dr. Hoyt's communication reached the legation in London they were acknowledged and forwarded to the Queen's private secretary who, that very day, laid the volume before her majesty and addressed a letter to the legation and another to Dr. Hoyt. The letter to Dr. Hoyt bears the Queen's private seal, and expresses her thanks in a most gratifying manner.—*American Paper.*

Many years ago there lived in Portland an eminent member of the Society of Friends, known in all the country around for his wit as well as for his integrity. It was long before the temperance question was heard of, but he abhorred "the drink," and had a contempt for those who "fuddled" themselves. He was overseer of the poor. It was his "month" at the work-house. A poor drunkard with delirium tremens was brought to the sick ward. The custom of those days was to "taper off" such cases with measured doses of rum. "Don't give him any liquor," said Friend Hussey to the master. "But he'll die if he doesn't have it." "Then charge him to me," said Friend Hussey. But the patient didn't die.

## HE WON THE BET.

Soon after 2 o'clock yesterday the sash in a four-story window of a business house on Woodward avenue was raised and a man's head and shoulders appeared in sight. Next he thrust out an arm and pedestrians saw a small rope in his hand. Twenty men halted in less than a minute. A plank was lying at the curb, and the general line of reasoning was that the plank was to be drawn up through the window.

"You'll break the glass if you try it!" shouted one of the fast growing group. "That cord isn't stout enough!" yelled a third. "Why don't they carry it up by way of the stairs?" demanded a man as he flourished his gold-headed cane around and seemed about to quit.

The cord came part way down and stopped. Some ten different persons volunteered the information of "more yet," and presently it was lowered so that one of the crowd could grasp it. He pulled down and the man above pulled up, and four or five men seized the plank and brought it to the rope. "Lower away!" yelled the man at the rope. "Pull down on it!" cried a dozen voices. The man above let out more rope and waved his hand. "He wants it over the hitching post!" screamed a boy, and it was carried there. "Let—that—rope—alone!" came from the man above. Six men had hold of the plank, ready to boost on it, and three more had hold of the rope. "Do you want the plank?" asked one. "No!" "Do you want the hitching post?" "No!" "Well, what do you want?" "I want you to let that rope alone! I had a bet of the cigars that it was long enough to touch the walk, and I've won!" What's the row down there—somebody dropped dead?"

The plank was hurled away, cuss-words indulged in as toes were trodden on, and in fifteen seconds the crowd had melted away to a quiet-eyed boy and an organ-grinder.—*Detroit Free Press.*

UNRECOGNIZED TALENT.—When a great man dies, be he writer or painter, statesman or scientific writer, we are apt rather to over than understate his achievements, seeking, perhaps, to atone for neglect by a too tardy justice. But the man who dies after a long life of work in which he has just failed to be great, whose success has always been of that kind which gains ready appreciation within the little circle of friends to whom he is known, but which never touches the world at large—whose genius, in fact, has shown itself in pleasing greatly a few, rather than touching the hearts or affecting the lives of the many—this man is apt, I think, to obtain but scanty justice, directly his powers of pleasing have ceased. And this is, of course, more certainly the case if he be one whose talents have been somewhat archaic, and if he has never cared to adapt them to the public measure of the useful, the beautiful or the true.—*London Spectator.*

THE SALVATION ARMY ATTACK.—A preliminary skirmish by the Salvation Army, which is about to invade New York, took place last night Dec. 2nd, in Clarendon Hall, in Thirtieth St. Programmes headed "Blood and Fire" were distributed among the audience of about a hundred announcing that Unsworth, the Connecticut forger; Weeping Nancy, from Connecticut; Shouting Annie, from Baltimore; Laughing Mary, from Philadelphia; Glory Lass, from Frankfort; the American Hal-lujah Lass, from Newark; Stonewall Jackson, from West Philadelphia; the Happy German; the singers Sallie and Mary, the soldiers from various corps" would be present; and they were. They sat on a raised platform and joined in the chorus. They failed, however, to arouse much enthusiasm among the sinners present.—*N. Y. Tribune.*

A SEVERE REPARTEE.—A severe repartee is recorded of Foote, the comedian, who, in travelling the west of England, dined one day at an inn. When the cloth was removed the landlord asked him how he liked his fare. "I have dined as well as any man in England." "Except the mayor," cried the landlord. "I do not except anybody, whatever," said he. "But you must!" bawled the host. "I won't!" "You must!" At length the strife ended by the landlord (who was a petty magistrate) taking Foote before the mayor, who observed it had been customary in the town for great number of years always to "except the mayor," and accordingly fined him a shilling for not conforming to the ancient custom. Upon this decision Foote paid the shilling, at the same time observing that he thought the landlord the greatest fool in Christendom—except the mayor.

Next year there is to be an exhibition in Paris of all the works of Messonier that can be obtained for the purpose. It is said that even the picture belonging to Queen Victoria, "Rise, or Quarrel at Cards," regarded as one of the very best, if not the best, of the artists' productions, will be sent to grace the occasion.

## CHRISTMAS PRESENTS

Lemont's Variety Store.

We are now opening goods direct from France, Germany, Austria, England and the United States. Our stock embraces the largest collection of goods we have ever shown.

BOHEMIAN VASES, Toilet Sets, Water Sets, Lustre Vases, Crystal Flower Stands, Card Receivers, Powder Sets, Ladies' Toilet Sets, Toilet Cases, Brushes and English China and Porcelain Individual Cups and Saucers, Tobacco Sets, Tea-Table Sets, Fruit Dishes, Flower Plates, Flags, Flower Pots, etc., etc.

Fancy Goods in Great Variety, Useful and Ornamental Articles. Dolls, Dolls, Dolls, Dressed and Undressed. A large display of KEROSENE LAMPS, CHANDELIERS, LANTERNS of all kinds, ALL KINDS OF WHITE STONEWARE AND CHINA, TABLEWARE, GLASSWARE, For table use, in great abundance. Two large showrooms, 90 feet long, filled with FURNITURE, or Parlor, Sitting Room, Bedrooms, Dining Room and Kitchen.

MATRASSES AND LOOKING GLASSES. Towels, Painted Toilet Sets, Bird Cases, Coal Scuttles, etc. Knives and Forks, Spoons, Sets Cutlery and Silver, Towels, Towel Sets, Measuring and Sewing Machines, Sewing Machines, Sewing Machines.

CHRISTMAS CARDS IS THOUSANDS. A number of MINK MUFFS, TIPPETS and BOAS—Very low prices. 5 NEW CABINET ORGANS, 2 NEW PIANOS, FOR CHRISTMAS SALE. We shall have our 5, 10 and 25 cent counters. All our goods will be sold at low prices, taking quality of goods into consideration.

WHOLESALE AND RETAIL. Thinking our customers for the past, we ask a continuance of their custom. LEMONT & SONS.

FIRST CLASS Gasfitting and Plumbing ESTABLISHMENT. THE subscribers beg leave to call the attention of the public to the fact that they have a shop on York Street where they are prepared to do anything in the above branches. They also have a large assortment of Gas, Steam and Water Pipe and Fittings ranging from 1/2 inch upwards; and also that they have men specially employed to do any work entrusted to them.

TINSMITHING. We have on hand a full assortment of Tinware, including the best Pressed and Japanned Ware, of both Canadian and American manufacture. Also, a full line of Stoves, of our own manufacture. In fact, everything found in a Tin Shop.

STOVES. STOVES. Niagara Cook, Water Cook, Star Cook and Water-town Cook, with Patent Fire King Oven, Close Stoves for Coal and Wood, Ranges for Coal and Wood. A large stock of Stove Pipe and Elbow.

PUMP AND PUMP FITTINGS, DRIVE WELL POINTS AND BLACK AND GALVANIZED PIPE. We'll driving down to order, and satisfaction guaranteed. HOT AIR FURNACES & REGISTERS. Furnace Fitting promptly attended to.

Fancy Spice Boxes & Wire Pot Cleaners. JUNE RECEIVED: A large lot of Patent Wall and Rubber Weather Strips for Doors and Windows. Excludes the cold wind, snow and dust. Call and see it. Just the thing wanted.

Give us a call when you want anything in the above branches. No putting off for a month. What we promise we perform. Prices as low as any one else in the business. A. LIMERICK & CO., dec 2 York Street, Fredericton.

Babbitt's JEWELRY ESTABLISHMENT CHRISTMAS, 1881. NEW CHRISTMAS GOODS AT BABBITT'S Gold and Silver Watches; Gold and Silver Necklaces; Gold and Silver Lockets; Elegant Gold Sets of Jewelry; Fine Gold Chains; Studs; Gem Rings; Gent's Signet Rings; Fruit Knives, Pencil Cases.

SILVERWARE. Tea Sets, Butter Coolers; Pickle Jars, Card Receivers; Jewel Stands, Toilet Sets; Vases, Parian Ware. FANCY GOODS. CLOCKS IN GREAT VARIETY. Spectacles. Eye Glasses. N. B.—No Lottery in connection with this business. Every purchaser will receive value for his money at the time of purchasing No Tickets issued. JOHN BABBITT, Opposite Post Office, - - - Queen Street

## IRON. OAKUM. BOILER PLATES.

RECEIVED AND IN STORE, EX. BARQUE "PARAMATTA," AND S. S. "HIBERNIAN" AND "CASPIAN"—17,700 Bars Rolled and Squared from 300 Bundles Plate and Hoops, various sizes and gauges; 210 Bundles Navy and Hand-staked OAKUM, 318 Bundles Nos. 20, 22, 24 and 26; 310 Sheets, Nos. 10, 12, 14, 16, and 18 SHEET IRON; 3 Cases GALVANIZED SHEET IRON.

I. & F. BURPEE & CO. 230 BOILER PLATES, Best R.R., R.R.B., and Lowmoor; Boiler Tubes and Rivets: 47 Bbls. Sled Shoe Steel; 151 Steel Plow Plates; 47 Bbls. Toe Calk Steel; 37 Bbls. and 15 Bars Round Machine Steel, 15/16 to 1 inch. TO ARRIVE PER "PHENIX," FROM ANTWERP, 15 Cases SHEET ZINC, Nos. 6 to 10.

Sled Shoe Steel. Sheet Zinc. Sheet Iron. Samuel Owen. T. G. O'Connor, IMPORTER OF BRITISH AND FOREIGN WOOLLEN MANUFACTURES. Lately arrived, a magnificent assortment of English, Scotch & Canadian CLOTHS, BEAVERS, NAPS, DIAGONALS, SERGES, OVERCOATINGS, WORSTED SUITINGS, CHEVIOTS, &c., &c., Suitable for the present season. A Splendid Stock of MENS' & BOYS' "READY-MADE" CLOTHING, WINTER SUITS, OVERCOATS, ULSTERS, REEFERS.

TRUNKS At Manufacturers' Prices, (Mumroe's Make). Clothing, Cheaper than my Neighbors. This is the house where PEDDLERS ought to buy. Bargains in all lines of Dry Goods. NO CREDIT. NO BOOKS. Buy for cash and sell on tick to no one.

Golden Fleece. New Fall Goods 87 Packages now Opened, COMPRISING IN PART WHITE AND GREY BLANKETS, CAMP BLANKETING, GREY AND WHITE FLANNELS, LADIES' MANTLES, LADIES' MANTLE CLOTHS, (A very large stock, all colors and qualities.) LADIES' FURS, LINEN GOODS, (In Table Damasks, Napkins and Towels.) BERLIN GOODS, (In Clouds, Jackets, &c., &c.) MOURNING GOODS; FRENCH MERINOES, CASHMERE, CORDS AND LUSTRES, LARGE STOCK OF WINCEYS, (Good value.) COLORED DRESS GOODS

3-BUSH L GRAIN BAGS and a general assortment. WHOLESALE AND RETAIL. PRICES MODERATE. John McDonald NEW Dry Goods store

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JOHN M'DONALD. GIBSON LEATHER CO., Manufacturers of all descriptions of Patent & Enamelled Leathers FOR SHOE & CARRIAGE PURPOSES. WAXED SPLITS, HARNESS AND UPHOLSTERING LEATHER. GIBSON, N. B. (Opposite Fredericton)

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