

FARM GARDEN

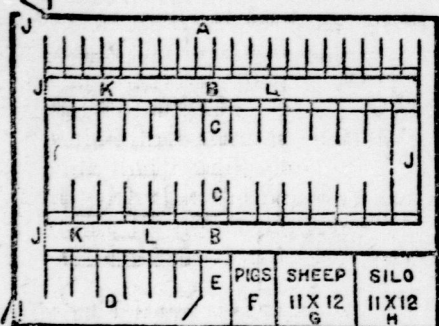
A BARN FOR EVERYTHING.

A Plan for Putting All Farm Departments Under One Roof.

A correspondent of the Country Gentleman, from whose pages we re-engage the illustrations of this article, writes: Your correspondent L. A. M. wants the "plan of barn for a 100-acre farm—the same roof to cover horses, cows, sheep, pigs, poultry, hay, grain, straw, tools, carts, everything useful where general husbandry is in practice—the building to be as long as the hill twenty feet high, and to cost between \$800 and \$1,200."

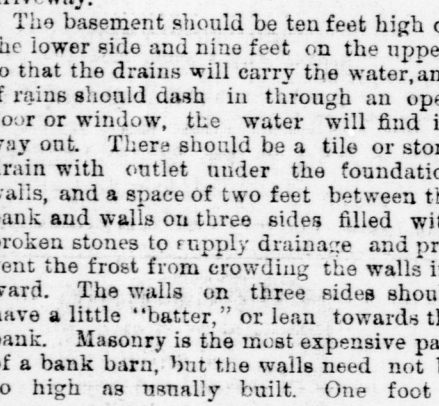
As you wisely remark, it would have been better if he had given us the number of each kind of live-stock he wants to keep, and the bulk of hay and grain to be stored.

After making an allowance of twenty acres for wood-land, waste land and permanent pasture, he probably has eighty acres of good tillable land for raising grain and hay. If so, he will need a bank barn at least fifty by seventy feet, and if he wants a silo, fifty by eighty feet will be none too large. There is much said against bank barns—that they are dark, damp, unclean and unhealthful, and no doubt some of them are objectionable on this ac-



count; but they are not necessarily so, and can be so constructed that they will be as light and dry and can be kept as clean and healthful as a barn entirely above ground. No other way has ever been devised by which so much room can be obtained, and so many conveniences secured at the same cost. A bank barn has the room of two barns under the roof of one, and the stock, if all kept in it, can be taken care of with much less labor than if kept in two. The hill where L. A. M. desires to build is twenty feet high. He should only dig into it far enough to have the bank about 5 feet high on the upper side. This will supply an abundance of earth to make the embankment for the driveway, and leave a space of four feet above the ground for windows. Most of the earth can be removed by the scraper and placed where wanted for the driveway.

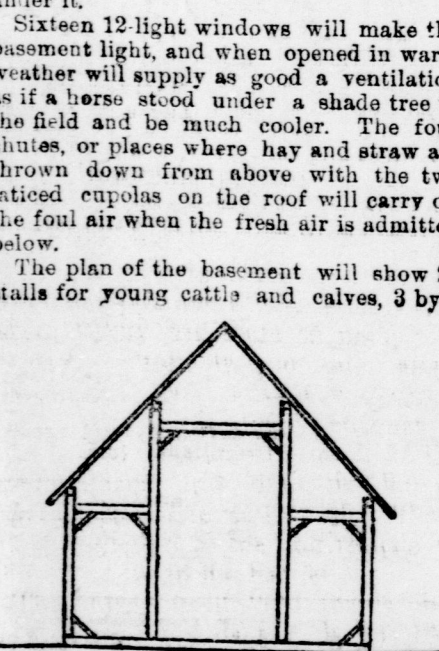
The basement should be ten feet high on the lower side and nine feet on the upper, so that the drains will carry the water, and if rains should dash in through an open door or window, the water will find its way out. There should be a tile or stone drain with outlet under the foundation walls, and a space of two feet between the bank and walls on three sides filled with broken stones to supply drainage and prevent the frost from crowding the walls in. The walls on three sides should have a little "batter," or lean towards the bank. Masonry is the most expensive part of a bank barn, but the walls need not be so high as usually built. One foot is



enough for the lower side, five feet for the upper, with offsets along the sides just keeping the sills (which rest on these offsets) high enough above ground to prevent decay. Between the basement sills and the barn floor sills are posts, weather boards and windows. Part of the foundation wall on the side next the driveway must either be built to the floor sill or a short bridge constructed to span the space between the end of the embankment and the floor. The latter will preserve the sill better, and will permit (if desirable) a window or cistern under it.

Sixteen 12-light windows will make the basement light, and when opened in warm weather will supply as good a ventilation as if a horse stood under a shade tree in the field and be much cooler. The four chutes, or places where hay and straw are thrown down from above with the two inclined cupolas on the roof will carry off the foul air when the fresh air is admitted below.

The plan of the basement will show 20 stalls for young cattle and calves, 3 by 9



feet, including mangers and walks behind; 28 cow or cattle stalls over 4 by 7 feet, with gutters, and a walk behind, 34 feet; 5 horse stalls, 5 by 10 feet; one box stall, 6 by 10; one pig pen, 6 by 10; sheep pen, 11 by 12; silo, 11 by 12. The bank where the sheep pen is located is about 5 feet high, and as sheep should have a separate yard from cattle, there should be an opening in the wall there with door and stairs for sheep and shepherd to go out and in. If no silo is wanted its space in the basement can be used for calves, sheep, or something else, and in the upper story for tools.

The owner can keep his poultry anywhere

in the basement (overhead) he sees fit, by making the perches close up under the floor, and having a wide shelf under them to catch the droppings, which should be high enough to pass under without stooping, and of course cleaned off and droppings carried out as often as the stables are cleaned, which should be every day. We keep part of our fowls in the basement, and they do well. Their roosts are entirely out of the way. They pick up scattered feed, eat insects and maggots, that become flies if not destroyed, and make themselves generally useful.

Our pig-pen is in the basement, and is so warm and comfortable in the winter that the pigs grow and fatten as fast as they do in the summer. If cleaned every day, the barn is kept free of odors and agreeable as if no pigs were housed in it.

L. A. M. will hardly be able to build such a barn as he wants for \$800 or \$1,200. Mine (50 by 70) cost over \$1,500.

THE GUINEA FOWL.

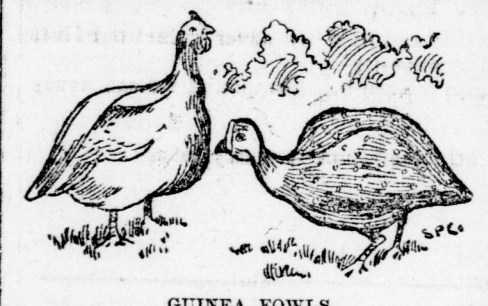
Birds Which Deserve More Attention Than They Now Receive.

There are a good many varieties of this bird, all of which are supposed to have originated in Africa. The two kinds most generally known are the speckled, or pearl, and the white, the former being the more common variety. They are prolific layers during the summer season; they mature early, and their flesh is fine and tender. The meat of the white Guineas is white, the skin being yellow; the speckled have dark flesh; both have a gamey flavor.

The birds mate in pairs. They usually commence to lay in May or June. The eggs, though small, are rich in flavor. The shell is very hard, and if the eggs are set under a hen, the nest should be filled with dirt and set in a cool, moist place. The period of incubation is twenty-six days. When young they are delicate, like turkeys, and continue so until they change their coat of soft down for one of feathers. They should be fed and managed like young turkeys, and, like them, will be inclined to seek high roosts, but should not be permitted to do so.

Guinea fowls are very useful as protectors of other young fowls from the attacks of hawks, crows or rats, as they are quick to give the alarm in a loud, shrill cry, most unpleasant to the unwelcome intruder. The only objections to be urged against these birds are their noise and quarrelsome habits. In the poultry yard they are spiteful (especially the cocks) to young chicks, and are, generally speaking, of a very pugnacious disposition.

The young can easily be trained to run with hens, and when so reared will not be



GUINEA FOWLS.

so apt to quarrel with them. When first hatched they are quite wild, but when kindly treated and often fed, they will become sufficiently tame to eat from the hand, and will not wander far from home. The white variety are more tame than the speckled.

It is advisable to start keeping guinea fowls by either purchasing eggs and hatching them under domestic hens, or procuring them when young, when they are more likely to localize themselves to their owner's wish than if purchased as older birds. If adults birds be purchased they will require boxing up for three weeks or a month and feeding carefully to tame them, otherwise they are liable to wander off at their own sweet will, possibly never to return.

But in spite of these disadvantages, as a semi-domesticated bird, it is very profitable upon a farm or anywhere where it can have free range and plenty of liberty, clearing the ground of myriads of insect life, and being a small feeder in comparison with ordinary poultry.

Ontario Dairy Experiments.

Bulletin XCIII. of the Ontario Agricultural College is devoted to giving the results of tests of milk made at the Special Dairy School at the College. The tests were made in two directions, one being to ascertain adulteration with water, or skimming of the cream, and the other to establish a scale by which milk could be bought and paid for according to the fat contained in it. In the first test the lactometer was used in order to find the specific gravity at a temperature of sixty degrees Fah. When the temperature could not readily be fixed at sixty degrees, 1 is added or subtracted from the indication on the lactometer for each degree above or below sixty. The specific gravity of pure milk ranges from 28 to 34, and that of skimmed milk is 33 to 36. This means that if water weighs 1,000, milk weighs 1,025 to 1,034, and when the milk is skimmed the fat taken out the milk weighs 1,032 to 1,038, as fat is lighter than water.

In order to find the proportion of fat (butter) in milk, the Babcock tester was used. In this the sample of milk to be tested is put into little bottles at 70 degrees if possible, and a little acid is put into each bottle, which will coagulate the casein and other solids, and leave the fat floating on top. To bring it all to the top of the bottles, they are put into a revolving holder, which whirles them around at the rate of 700 to 1,200 revolutions per minute. The fat being the lighter, accumulates in one end of the bottle, which is graduated in a scale on the outside, showing the percentage of fat and of the skimmed or separated milk. The test should show 8 per cent, or more of fat; 87 to 89 per cent, of water, and 8.5 to 9.5 per cent, of solids not fat. If below 8 per cent, of fat is shown, the milk has been skimmed. Full directions are given in the bulletin for making the tests absolutely correct. The bulletin gives a table showing that 1,000 pounds of milk having 8.7 per cent, of fat is worth \$8.25 when made into butter which sells at 24 cents per pound, while it contained 4 per cent, of fat it would have been worth \$8.92, each patron of a factory where the Babcock tester is used, gets pay for his milk according to its value and not according to its measure.

A Few Practical Hints.

Every owner of a home or a farming country or village, says the Cultivator, should aim annually to make some improvement of his surroundings. Buildings were erected years ago in haste, leaving the grounds with more or less of a rough surface. Being now covered with grass, the owner does not wish to have the surface broken and the sod spoiled; but he may make a smooth lawn by gradually filling the depressions with fine earth or sand to a depth of an inch in the hollows. The grass quickly penetrates this thin bed, and by repeating the operation several times during the season, he may with little cost and no breaking of the surface, have made a great improvement.

THE BUSY BEE.

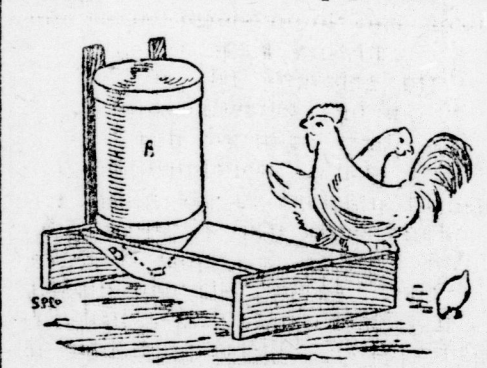
Some Information Concerning the Profitable Insect in Summer.

This promises to be a profitable year for the bee-keeper. The early spring bloom was plentiful and the general rains which are now saturating a parched soil will soon make plentiful the white clover and the other summer blooming plants. In the management of bees a writer in the Epitomist says: In May we left the bees all or nearly all, equalized, so that they were nearly the same strength. We are now drawing very near the surplus season of the north and west, as these are the locations we are giving instructions for; of course, in the south, where bees fly every day in the year, fair weather operations must be commenced earlier in the season. We should now watch to see when the bees commence honey gathering. If we remove the cover to a hive and give the bees a puff of smoke we shall see when they begin to build little bits of white comb at the top of the frames, or begin to build on to lengthen out the cells with white comb. This is just the time to put on our surplus arrangements. Now, if we are to run for extracted honey, we want an empty story filled with empty combs. We first smoke the bees and open the hive by removing the cover, and place a perforated honey-board on the hive. We now place the upper story, containing the empty combs, on top of the other hive, and place the cover on the upper story. This perforated honey-board is made of zinc and is perforated so that the worker bees can readily pass through it, but the queen and drones cannot; so no eggs are laid in the upper story. When the combs are filled with honey in the upper story we are ready to extract the honey. This is done by smoking the bees, removing the frames, shaking off all the bees and uncapping all the cells with a knife made for that purpose. The combs are then placed in the extractor, and, by turning a crank which is attached to a gear, the honey is all thrown out clean by centrifugal force. Then these combs are returned to be filled again.

A better way is to have an extra set of combs go to the hive to be extracted, and remove the frames, shake off the bees and then this extra set; then take this set to the honey-house, or wherever the extracting is to be done, and extract the set and use them for the next colony. Some small beekeepers do not extract until the last of the season, preferring to have two or three extra sets of upper stories, with frames, and as soon as one is nearly filled they remove it to the honey-house and put another under it, thus having three-story hives and sometimes run it up to four or five stories; then when they have leisure they do the extracting. Sometimes, and very often, large apiaries have to be worked on this plan on account of not having sufficient labor or time in the pressing part of the season. If the honey is kept extracted out of the combs bees very rarely swarm, but all their attention is turned to honey-gathering, so a large crop of honey is the result. If we are to run for comb honey, then the operation depends something on the style of our surplus arrangements. One thing, however, is a settled matter with bee keepers, that is, the honey must be stored in section boxes of some style, and the market of our country calls for a one-pound box and he who uses any other style will find it difficult to put his honey on the market, that he has made a mistake. The honey box that may now be called the standard is 4 1/2 x 1 1/2 inches, and when separators are used, as they always should be when a twenty-eight-pound case is used, they will weigh, when well filled, just about one pound. This is the simplest case now in use on the L or standard ten frame hive. If brood frames, with seven-eighths inch thick top bar, are used, then we will require a slatted honey-board to be placed on top of the frames, and then set the case on top of the honey-board. This case should contain twenty-eight one-pound boxes. We prefer a standard of V-shape, the lower point extending down half the depth of the section, as this is precisely the shape bees begin to build a comb from the start. Thin pieces of wood, called separators, should go between each row of four section boxes; then a quilt should be placed on top of the sections, enameled side down. If the new Root hive is used or a thick top broad frame, then the slatted honey-board can be dispensed with. But the case I like by far the best is a small case, each holding six or seven boxes, and each independent of the other; four cases just cover a hive.

Water Fountain for Chickens.

The illustration presented herewith, re-engraved from Orange Judd Farmer, represents a simple method of supplying water regularly with pure water. It consists first of an ordinary V-shaped trough B, made from common fence boards. This can be any desired length, but eighteen inches is sufficient. In this at one end invert a five gallon can or jug A, which has been previously filled with pure water. To



FOR WATERING FOWLS.

keep it erect, drive two stakes at the end of the trough and lean the can against them. If further support is necessary, tie it to the stakes. As soon as the water is lowered in the trough below the opening in the top of the can, a little air is admitted and water flows out to take the place of that consumed. By this means water can be kept pure and wholesome and, if the vessel be made of earthenware and placed in the shade it will keep cool for a long time. During warm weather possibly as much disease in the poultry yard originates from unclean drinking vessels as from any one source, and a little time spent in constructing this fountain will be well spent.

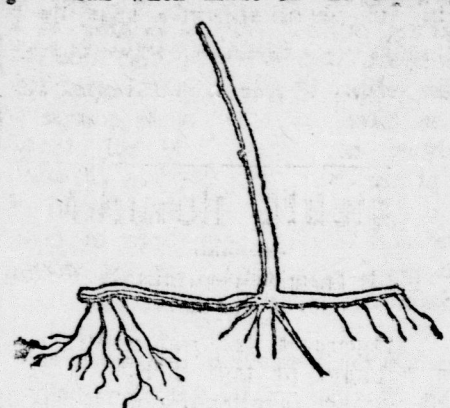
Hardy Vines.

A useful and curious vine is the Dutchman's Pipe, (Aristolochia sapho). This has very large leaves, grows fast, and has flowers which resemble an old style tobacco pipe, from which its name, pipe vine is derived. There are many miscellaneous vines of great value. The Akokia quinata is one of the best, being a rapid grower, having five-foliate leaves, and bearing sweet scented, plum-colored flowers. Another is the bitter-sweet, Celastrus scandens. This has small, white flowers, of no attraction at all, but when fall comes the blossoms have changed to bright scarlet berries, which hang on the vines all winter long.

ROOTING A GRAPE CUTTING.

Method by Which Vines Can be Successfully Duplicated.

The illustration shows a method of making grape cuttings by which more roots will be formed and greater strength developed than when made in the ordinary way.



ROOTING GRAPE CUTTINGS.

It often becomes desirable to duplicate choice vines which can be done most successfully by the method herein described. Lay down a branch bearing a shoot and bury it for one summer allowing the shoot to stick out of the ground. Roots will develop from the base of the shoot as well as from the buds on either side of it as shown in the cut. At the end of the year cut away the original branch so as to leave the roots similar to those shown in the illustration. The shoot is then ready to be planted. This will make one of the strongest kinds of new vines. Almost the same result may be obtained by removing the section of the branch before burying taking care to cut it beyond the first bud on either side of the shoot. However, it is likely that the cuttings will not become as strong in such cases as when the branch is buried.—Ohio Farmer.

HOUSE PLANTS.

A Practical Gardener's Hints Upon Their Proper Care.

The four most important requisites for the successful culture of plants are: 1st, proper temperature; 2nd, sufficient light; 3rd, fresh air when practicable; 4th, proper attention to watering.

1st, Temperature.—This will, of course, vary for different plants, but the majority of flowering plants, in common cultivation, will thrive in an average heat of 60 degrees by day and 50 by night. A few degrees over or under will make no very material difference. Coleus, and a few other things will develop better in a higher temperature, and roses and others will take lower, with advantage, but the above will be found about the best medium for general collection.

2nd, Light.—Light is a great desideratum, as but few flowering plants will flourish and bloom satisfactorily without it. In winter, especially, it is necessary to give plants as much sunlight as possible. In summer, when more air can be admitted, it is not necessary, in the hottest time a moderate shade will be found beneficial for almost anything.

3rd, Air.—The rule is to admit air at every possible opportunity, being careful, however, not to chill the plants. 4th, Watering.—This requires a good deal of attention. Many people have the idea that so much water should be applied daily. This is a serious mistake. Many plants which need a great deal of water in summer, do not need so much in a week in winter. It is better to let the soil in the pot get dry before watering, then soak it thoroughly and do not water it again until dry. At all times the foliage should be washed sufficiently to keep it always in a clean, healthy state.

Insects.—If taken in time are easily kept under. It is when plants are neglected that vermin become so numerous, and in some cases, to make it almost impossible to get rid of them. The most common insects are the following: Aphid or Green Fly.—An application of tobacco, in the form of smoke or tobacco water, will finish them.

Red Spider.—A very minute insect, scarcely to be seen. Its presence may be known by the leaves appearing as if shrivelled. The best remedy is to keep the leaves moist on both sides, as the spider cannot stand moisture. Scale.—Appears clinging to the bark of Oleanders, and other hard wooded plants. A solution of whale oil soap, or where that cannot be had, strong soap will kill them, afterwards washing the bark well will prevent further attacks.

Mealy Bug.—It is a white, downy looking fellow, which occasionally appears. A touch of alcohol on a feather will kill him. The preventive for all insects is to look over your plants occasionally, and, with a small brush, or your hand remove and kill any that may be seen. This is more quickly and easily done than you would think, till you have tried it, and it is sure.

Earthworms.—Occasionally get into pots, and loosen the earth around the roots. When signs of them are observed, a little lime-water dislodges them.

The Bark of Fruit Trees.

As a general thing healthy trees are able to get rid of the old bark without any help from the cultivator; but in many cases they are all the better for having a little help from man. In many species of trees, there is an arrangement provided by nature, for helping a plant to get rid of its bark. These are called in scientific language "super cells," that is to say, cork cells. These appear at first on the outer bark, as small brown spots. From year to year, however, they develop, sometimes eating into the bark in longitudinal lines, and in this way form the cracks which ultimately result in what is known as rough bark. As it is thus the design of nature to get rid of the outer bark, it is good practice to help nature in this work. For this purpose, washes of various kinds are found in practice extremely useful. In fruit culture, soapy solutions have been found very effective and in the unscientific work of successful farmers even lime wash has been found beneficial. In some of the interior counties of Pennsylvania, a farmer would almost as soon think of never cleaning his horses, as letting his orchard trees go without a coating of lime wash once a year. The practical results of this treatment speak for themselves. No healthier trees, or more successful fruit crops can be had than result from this practice.—Mechanics Monthly.

Best and Cheapest.

A better or cheaper egg food than the sunflower seed, would be hard to find. It gives a gloss to the feathers and a vigor to the fowl that nothing else will. Grow them in fence corners, spare spots in the garden back yard, and anywhere a seed can "take hold." It is best to feed but once or twice a week—but it counts in an increased number of eggs, every time. Sometimes the fowls have to be taught to eat them, by starving them to it, but when they have once learned the trick they never refuse them thereafter.—Western Rural.

Blood

should be rich to insure health. Poor blood means Anæmia; diseased blood means Scrofula.

Scott's Emulsion

the Cream of Cod-liver Oil, enriches the blood; cures Anæmia, Scrofula, Coughs, Colds, Weak Lungs, and Wasting Diseases. Physicians, the world over, endorse it.

Don't be deceived by Substitutes! Scott & Bown, Belleville, All Druggists, 60c & 50c.

DELICATE

MURRAY & LANMAN'S

IMPERISHABLE

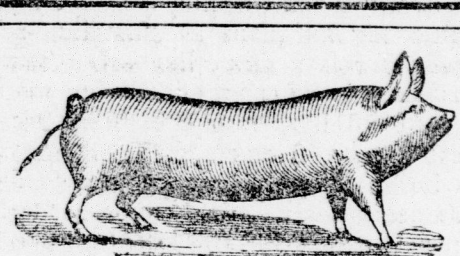
PURE SWEET LASTING

RICH RARE PUNGENT

FLORIDA WATER

STILL HOLDS THE FIRST PLACE IN POPULAR FAVOR. BEWARE OF IMITATIONS.

FRAGRANT



ASK YOUR GROCER FOR

The Canadian Packing Company's

PURE LARD

Every package stamped with our name

TO BUILDERS & THE TRADE

An opportunity is solicited to quote you prices for all kinds of interior finish and for machine work of every description. Turning of any design done in the neatest manner. Furniture, beds and rails, blinds and screens, sash, doors and frames in all styles. Prices right. Respectfully yours,

J. C. DODD & SON,
Cor. Wellington & Bathurst Sts., City
TELEPHONE NO. 351.

THERE IS JUST ONE THING THAT the citizens of London and vicinity would do well to make a note of, that at 121 Dundas street, books and magazines of all kinds and styles are bound neatly, cheaply and quickly.

W. J. MOFFAT

BOOKBINDER. 175

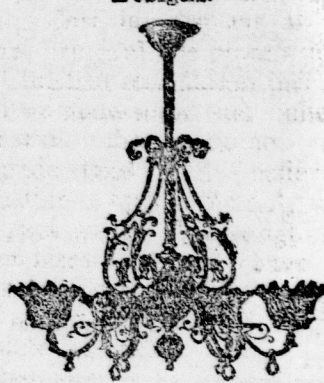
GAS-ELECTRIC

Combination Fixtures.

GAS BRACKETS and HALL LAMPS.

Also Gas and Electric Globes.

Etched, Tinted and Colored, of English, Canadian and American Designs.



JAMES BARWELL,
88 BAY STREET, . . . TORONTO

Designs furnished for churches or public buildings.

LEADING HOTELS.

Madison

Avenue

Hotel,

Madison Ave. & 58th St.

NEW YORK.

\$3 PER DAY AND UP.

American Plan.

FIREPROOF and FIRST-CLASS IN EVERY PARTICULAR.

Two blocks from the Third and Sixth Avenue Elevated Railroads.

The Madison and Fourth Avenue and Belt Line Cars pass the door.

H. M. CLARK, Proprietor.

Passenger Elevator runs all night.

GRIGG HOUSE

The Commercial Hotel of London

Remodeled and refurnished, and is now the leading house of Western Ontario. Rates \$1.50 and \$2.00. E. HORSMAN, Proprietor.

GRAND OPENING

NEW FURNITURE SHOWROOMS.

WE WANT CASH For 30 days we will sell: Solid Oak Bedroom Suites British Plate Mirror, cheval or square, polish finish, \$20. Oak Dining Chairs, \$1, regular price \$1.50. PARLOR SUITES AWAY DOWN.

JOHN FERGUSON & SONS.

174 TO 180 KING STREET.

RHEUMATISM

NEURALGIA, MUSCULAR STIFFNESS. MUST GO

PAIN IN SIDE & LOW BACK

WHEN "D.&L." MENTHOL PLASTER IS USED

ITCHING AND PIN WORMS. PILES

No More Misery.

DR. CHASE'S

INTMENT

ITCHING PILES is an exceedingly painful and annoying affliction, found alike in the rich and poor, male and female. The principal symptoms are a severe itching, which is worst at night; when the sufferer becomes warm in bed. So terrible is the itching that frequently during sleep scratches the parts until they are sore—ulcers and tumors form, excessive moisture is exuded. Females are peculiarly affected from this disease, causing unbearable irritation and trouble. These and every other symptom of Itching Piles or irritation in any part of the ment. It will instantly stop itching, heal the sores and ulcers, dry up the moisture.

REFERENCES.

Newmarket—J. T. Bostart, Mr. Kittle, King City—Wm. Walker, Belleville—R. Thompson, druggist, Tottenham—James Scanlon, J. Reid, Barrie—H. E. Garden.

The celebrated Dr. Chase's Ointment is made expressly for Itching Piles, but it is equally good in curing all Itchy Skin Diseases, such as Eczema, Itch, Barber's Itch, Salt Rheum, Ring Worm, etc., etc. For sale by all druggists. Price 60 Cents. Mail address—EDMANSON, BATES & CO., Bradford, Ont., Sole Agents for Dominion of Canada.