APPLYING KEROSEN R INSECTS

Report From an Expent Station. rofessor Goff's Metho Kerosene emulsion, w and applied, has proviously made and applied, has proviously in-secticide for a class of in not readily operly made destroyed by other meaThe making of the emulsion is, howeaccomplish-



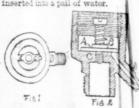
THE PUMP WITH REPOSENE CHMENT. ed with more or less diffice Profess or Goff, in the hope of overing a method by which the kere and water could be so intimately mingled during the spraying process to do away with the necessity of pring the emulsion separately, began eriments in this line which were contil through several seasons until satisfay results

were gained.

The method is very simpand consists in so constructing the er valve seat of a pump that it allows a ntrance of water through one openind kero-sene through another, the liquids becoming mixed in passing ugh the valves and cylinder of themp and finally broken up into an edingly fine spray by being forced thra a good surraving nozela.

nne spray by being forced thra a good spraying nozzle.

The pump used by Professorff was the "Little Climax," but otherwing pumps on the market would is believed answer as well with sitr modifications. This pump, with itrosene attachment, is shown in their out. The modification is flustrated detail in the second cut, where the figure in the second cut, where the figure represents a transverse and thoond a vertical section of the valve sea In the pump used the valve and valve ts are of brass. The lower valve she at A, Fig. 2, is held in place by a tw, B, which fits into a bridge, C (Figs.nd 1), extending across the center of thrifice for the entrance of the water in the modification of the pump a newsting was made similar to the originale except that it had a projection at a side (D, first cut) so placed that a helvilled through it lengthwise passes thron the center of the bridge alluded to be one end. To this projection is attach t screw coupling a stop cock (A. sar tends into a vessel holding kerose, the regular suction tube of the pump inserted into a pail of water.



TRANSVERSE AND VERTICAL SECTIONS ATTACHMENT.

The operation of the numb a plain The water enters through the ordinar channel, the kerosene through the sid channel. e the valve in closing clos The mechanical nixtur secured solutely canent, is sufficien ! o for safe use on plan per cent. is desired to charge the kerosens, the sto turned in the desired direction, at gray with water aly the placed in th ion of sore mps will ap hich is not pa this attack that secures ture of ke and water during Bisulphide of sprayed w ture that is suff practical purpos ly permanent

With Tomatoe Expe omato growin Experi York Cornell station upon. The nature of ad their main results have been r ated as follows hed once early a the results than divided Nitrate of season gar ed until late in the f soda alone gave the Bason; (2) largest viel good soil; (3) the refertilizing is not lation of the experiments thus setting (May 9) was clearly indi-far made; ng; (5) seeds for the better than main crop s planting should pot grown plants ne at leas ms of seedlings and cuttings wer no gain from a mature fruit cave lds than those from earlier and be (11) "leggy" an immatur large yields; plants did no 13) hilling di refavorable result 14) the result stem training used yield and estipearently was not in-of culture or variety; Dess; (16) fruit has appeared in New ew varieties tested in York; (18) of the better than some older

A well-known Berlin physician states: and fortify you against norters.

STACKING HAY.

How to Build a Hay Barrack With a Mov-

able Roof.

It is hardly practicable to give directions in writing for stacking hay. There are some things that are best learned from ebservation, and stacking hay is one of these. Therefore if you wish to become proficient take lessons by watching a good stacker. The foundation ought to be made of boards or some timbers to keen the hay from absorbing bers to keep the hay from absorbing moisture from the ground. Be sure and keep the middle highest; it should be evenly trod down on all sides. Pitch the hay onto the stack from different sides or near the center of the stack to prevent the hay from packing on one side more than on the other. The top should be finished with long, straight, coarse grass or straw. In the old country stacks are thatched.

In the cut here reproduced from The

Farm Journal is shown a hay barrack with a roof that can be raised and lowered to accommodate a greater or less am The poles must be set solidly and per-pendicularly and the roof frame put to-gether with mortise and tenon, so the raising and lowering will not wrench it and make the roof leak. The roof if made steep may be of matched boards, but shingles will be cheaper in the long run. Most of the manufactured roofing is not desirable—in fact, very little of it is worth the labor of applying. The holes in the corners through which the poles project are the one defect in this form of barrack, making the immovable roof superior to it. The rain flows down the roof and poles, frequently wetting the stack. The roof water can be kept out by nailing tin to the under side of the roof and letting it flare out of the hole above the roof surface to catch the water and throw it away from the pole holes.



A HAY BARRACK. The roof is raised by a lever and pins, Holes are bored at least four inches deep on the outside surface of the poles, as the engraving shows. A pin or iron bolt is then inserted in one and the lever placed on it. When the lever is raised, another pin is slipped in under it and the lever borne down until the first pin is removed and placed higher up in the next hole under the end of the lever. When the barrack is filled, the cover is allowed to rest the harm of wright. A stack 18 feet on the hay as a weight. A stack 18 feet square and 16 feet high holds about 10 tons, 512 cubic feet being considered an average ton. Measure the length, width and height and multiply them all together to obtain the cubic contents. If the roof be lowered onto a couple of sleds or wagons, the poles can be set elsewhere and the roof raised on them as at first. A shows the tin placed around the hole, B is the lever and the holes in the post.

In and In Breeding of Fowls.

A Massachusetts breeder of fowls makes the declaration in The Ploughman that he has never exchanged a male or female bird in the 43 years he has bred them, and no one can show a more hardy stock of fowls or one more profitable. This opens up the very interesting sub-ject of close or in and in breeding of fowls, and champions will be found pro and con all over the world. The Orange County Farmer believes the Massachu-setts breeder already quoted correct in his theory and practice. The Fanciers' Lournal on the same theme save:

Journal on the same theme says:

The in and in theory will find many opponents who prefer crossbreds to thoronghbred poultry, claiming more vigor and stamina for such. As we are to deal with fowls only, we will state that the with rowis only, we will state that the in breeding theory is very plausible. The deterioration of a thoroughbred race of fowls is not due to in and in breeding, but to the selection of physically inferior specimens as breeders for the sake of securing a desired fancy point. By selecting strong, vigorous males and females. The second floor is if anything better aring strong, vigorous males and females every year as breeders there will be no need of going outside of the flock for

A breeder in The New England Fancier the in and in breeding policy severely. He says inbreeders have done a great deal of damage to the pure bred poultry trade. Their weaklings have gone out to the world, and by their lack of vigor and strength have created the impres on in the minds of a great many that fine fowls are not as healthy as the common This idea is born of inbreeding. and it is high time for the fanciers to give the subject their serious attention and look to the health and vitality of their fowls as well as to their feathers. Introduce new blood and keep on introlucing it to produce a race of superior birds.

The department of agriculture has a scheme afoot for the benefit of American farmers. It is to establish in London a permanent bureau for the purpose of in fruit in European markets.

Progressive farmers are using hay style horse fork as that is ahead of

The Rhode Island State Fair association is encouraging poultry exhibits, in tures, furnace, fences or water plumbing witness whereof is the following: The nould be built for \$6,800. Lovis H. Ginson. poultry department has received an appropriation of \$2,000, and the schedule remiums has been revised after those ng poultry organizations. The liberality shown by the management in not charging an entrance fee and in building permanent coops for 2,000 birds will doubtless bring out the largest exhibition of poultry ever seen in New England.

American potatoes, onions and apples find a good market in Mexico.

in physician states:

cholera-proof. K.
stickic photographs. Have you seen his
stomach to healthy
against shriera.

Trank Cooper always leads in the way of
consided with common Cathartic of P
pills as they are extremely unlike
every respect. One trial will prospanish shriera.

PRACTICAL AND ARTISTIC.

A Cleverly Arranged Dwelling That Costs but \$2,300 to Build. [Copyright, 1893, by American Press Associa-tion.]

Floor plans grow from the practical necessities of people who build. The architect is very seldom able to sit down and devise a plan from his inner consciousness which is in all respects suited to the requirements, or at least the demands, of people who live in it. The people who build houses go into an architect's office



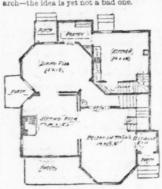
SIDE ELEVATION.

not knowing just how to carry out their ideas, but very frequently with clear thoughts as to what they want. The archi-tect, if he is industrious and ingenious, is tect, if he is industrious and ingenious, is generally able from an expression of what is wanted to work out a practical plan. Oftentimes it will contain more than the owner expected in the way of little conveniences and accommodations at the same time that it takes into account all of the general demands.

This plan is of the kind mentioned. The owner and his wife had been thinking for a good while as to just the kind of a house they would build. They had been house-keeping in it before it was even on paper.

a good while as to just the kind of a house they would build. They had been house keeping in it before it was even on paper. It is not the kind of a plan an architect would develop from an ideal standpoint, yet it makes a very attractive and complete house.

There is a little front porch leading into a vestibule, in which latter there is abundance of room for a hatrack, umbrella stand and all that belongs to a vestibule. From there one goes into the reception hall, which, in fact, has all the qualities of a room. There is renoved from it most that is objectionable to a reception hall. The stairway is a little outside of it and does not monopolize the room. The hatrack is in the vestibule, and hence there is nothing in the reception hall which would prevent its use as a living room. Back of the hall and a little out of the way is a small passage to the dining room. In it is a washstand. While this washstand might be placed in a better position—say on the other side of the arch—the idea is yet not a bad one. arch—the idea is vet not a bad one.



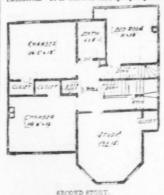
FIRST STORY

From the reception room one may pass to the second floor, the sitting room and the dining room, and from the dining room through the pentry to the kitchen. The pantry is provided with double swing doors and has the ordinary kitchen pantry cupboard and also a china cupboard. In the former the architect has arranged a flour bin and inclosed shelves in the lower section of the cupboard and open shelves above. In the china cupboard there are inclosed shelving in the lower section and shelving with glass doors above. These provide for a pretty display of china and are altogether very attractive.

very attractive.

The kitchen is of that character which The kitchen is of that character which usually accompanies these plans. It is provided with ample table, sink and drain board in close proximity to the entrance to the pantry and conveniently arranged with respect to the range. The passageway to the cellar is adjacent thereto, and hence there can be no waste labor in connection with the natural work of a kitchen. There is some shelving at the head of the cellar stairs. This never comes amiss. There is also an arrangement of tables and shelving in the triangular corner of the pantry.

ed than the first. There is a short, cen-r located hall, which communicates trally located hair, which with all the rooms and passages. It meets all of the conditions of a proper means of radiation. It is central and properly con-



SECOND STORT nected. The bathroom is located where the plumbing can be most economically cared for. There is a linen closet from the hall. There are other large closets in each bed-

Each room is heated from the front. The back stairway has its hall cut off from the main hallway. Such a house without mantels, gas fix-

Points to Consider. Points to Consider.

Sometimes by the judicious expenditure of a few hundred dollars in the cost of the construction of a building its real value will be increased many fold, and the property will always find a ready sale, in case the owner wishes to dispose of it, or secure tenant who will pay a fair percentage upon the investment, while money expended in absurd and meaningless ornamentation will neither sell nor rent a building a constitution of the owner. ing at a profit to the owner.

RESIDENCES OF STEEL.

25 DOSES 254

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HAPPY HOMES

The People's Building & Loan Ass'n.

Ralph Brisbane Nonesuch, who is reputed Rajph Brisbane Nonesuch, who is reputed to have made a fortune of \$25,000,000 in South African diamond mines, has purchased a 500-aere tract in the Temescal district, near San Francisco, where he will erect a novel residence, a palace in fact, upon which \$1,500,000 will be expended aside from the finishing. This is to be a structure built almost entirely of steel and glass.

and glass.
The building, says the American Contract The building, says the American Contractor, is to be about 230 feet long by about
100 feet wide. At one end it will be surmounted by a tower 115 feet high, at the
other end by a similar tower, but of less
size and height.

Not a foot of lumber or wood in any
shape is to be used in the building. The
material will be iron, steel, aluminum, brass,
bronze, platinum, silver, concrete, cement
and stone. And the only stone used will be
sculptured marble in the stairways and the
main frieze, and onyx and decorative

sculptured marble in the stairways and the main frieze, and onyx and decorative marbles in the bath-rooms, the stairs and a few other places. Even the foundations will be of steel and concrete.

The floors will be of concrete, brass and aluminum, the walls of steel and the roof of steel, brass and copper. The inside walls will be some of oxidized sheet iron, some brass covered with a preparation that protects the burnish of the metal, some copper, some nickel and so on to correspond with the decorations of the room.

The ceilings will be arched and relieved The cerlings will be arched and relieved

here and there with great brass medallions

here and there with great brass medallions. The partition walls will be composed of metal grilles, extending from floor to ceiling, arranged in various deeigns, forming a vast network through which the visitor can see from the grand stairway at one end to the great ball-room at the opposite end.

Rich tapeatries will ordinarly cover the metal grilles and divide the interior thus into fourteen appartments, eight of which will be chambers and consist each of a will be chambers and consist each of a suite of four rooms—a sleeping room, dress-ing room, bathroom and study. All the heating, lighting, ventilation and cooking will be done by electricity.

Suitor-1 have come, sir, to ask you to give me your daughter's hand." Pater-families-Why, sir, when I last saw it, it was in your possession.

Edward Linief, of St. Peters, C. B., says Edward Linief, of St. Felers, C. E. says
"That his horse was badly torn by a
pitchfork. One bottle of MINARD'S
LINIMENT cured him."
Livary stable men all over the Dominion
tell our agents that they would not be
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class grocers.

ASK FOR IT.

HUMPHREYS'

The Calendar for the Session 1893-4

FACULTY of LAW. (Opening Sept. 4th. FACULTY of MEDICINE. (Ost. 2nd. FACULTY of ARTS, or ACADEMICAL
FACULTY - Including the Constitution

FACULTY of APPLIED SCIENCE .-Including Departments of Civil En-gineering, Mechanical Engineering, Mining Engineering, Electrical En-gineering and Practical Chemistry.

FACULTY of COMPARATIVE MEDI-CINE and VETERINARY SCI-ENCE. (Oct. 1st.) McGILL NORMAL SCHOOL. (Sept.

J. W. BRAKENBIDGE, B.C.L. Acting Secreta Address-KeGill College.



Tendericine. Pigs' Feet, Ewee'bone, Elbs. Eackbone, Ridneys, Hearts, Livers. Pork Cuttings, Pork Chops and Loins for Eoasting. Very Cheap for Cash Only All orders for delivery must be given before

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Sarnia Branch, Limited Express (B). Accommodation
Atlantic Express (B)
Accommodation
Acading Express (B)
Mixed Atlantic Express (s) 11:30 a.m.
Accommodation 2:10 p.m.
Reading Express (s) 2:10 p.m.
Mixed 5:35 p.m.
Accommodation 8:15 p.m.
Eric Limited (s) 11:35 p.m. Sarnia Branch.

St. Marys and Stratiord Branch.

The People's Euilding & Loan Ass'n. Head office, Moisons Bank Buildings, London, Ott., is what its name implies—an association of the reople for the besselt to its insubary of the reople for the besselt to its insubary of the reople for the besselt to its insubary of the money to further or property, pay off old loans or improve their present property can borrow it. By this great cooperative plan thousands of happy homes are now owned by their occupants. Continue the way you are now doing and you will pay rent forever. Leans repayable in monthly installments. Do you want to see your savings grow? Then take a few shares of our installments abok. Start with July series. Six dollars saved monthly will amount to \$1,000 in 7 years. Smaller or large sums in like ratio. Loans can be paid at any out. W. M. SPENCER, president; LIEUT-COL. W. M. GARTSHORE, vice-president; WM. SPITTAL, socretary-treasurer.

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McGill University, MONTREAL. SESSION 1893-4



TIME TABLES GRAND TRUNK-Southern Division.

3:35 a.m. 3:40 a.m 3:45 a.m. 3:50 a.m 12:10 p.m. 12:20 p.m 3:10 p.m. 3:15 p.m 4:20 p.m. 3:15 p.m 4:20 p.m. 4:25 p.m 6:50 p.m. 6:60 p.m 11:20 p.m. 11:40 p.m ie Limited (A).

ARRIVE. | DEPART 6:14 a.m. 6:20 a.m. 6:14 a.m. 6:20 a.m. 10:15 a.m. 10:20 a.m. 11:20 a.m. 11:25 a.m. 12:30 p.m. 2:16 p.m. 9:50 p.m. 7:10 p.m. 9:50 p.m. 7:30 p.m.

deading Empress (B)...
irie Limited (s)...
Accommodation
'acific Express (B)...

Hamilton—Arrivo— a.m. | a.m. | a.m. | p.m. | p.m. | p.m. | p.m. 112:30 | 819:00 | 10:30 | 812:30 | 3:05 | 6:25 | 8:18

* These trains for Montreal.
† These trains from Montreal.
(a) Runs daily, Sundays included,
(b) Runs daily, Hundays included, but makes no intermediate stops on Sundays.
(c) No. 20 carries passengers between London and Paris only.
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All trains stop at intermediate stations when passengers at or for. CANADIAN PACIFIC RAILWAY.

ortland, Me.

..... 1:15 a.m. 11:15 a.m. 11:55 p.re

\$290 a.m. 12:57 p.m. 12:47 a.m. 2:30 p.m. 2:35 a.m. 2:30 p.m. 2:35 a.m. 10:10 p.m. 10:10 a.m. 17:10 a.m. 17:10 a.m. 7:55 p.m. 7:50 a.m. 7:55 p.m. 7:50 a.m. Trains arrive from the west at 240 a.m., 4:45 p.m., 10:15 p.m.,

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Trains North.

(Exp. Exp. Mir.

M. C. B. Junction 11.39 Courtright 1.25 3.56 harnia (G. T. B.) serrino 4.56 ADVERTISEMENT CHANGES.

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