

CHANGING STREAM CHANNELS.

Natural water courses which cross the farm can be readily straightened by al. drainage, additional measures must be ways making the new channel a little taken. In the country in which I redeeper and wider than the old one. Do not think the action of the water will enlarge a small channel, for nine times in ten disappointment will be the re-The changing of water courses of sult. small streams is often of great value, increasing the tillable land and improving the appearance of the farm .- American Agriculturalist.

WHEN TO KELL BRIARS AND BUSHES. The idea that there is a certain time in the moon's age when briars, bushes and noxious plauts are more easily killed than at others is now very generally regarded as fallacious. It is, however, true that when cut in the season of their most active growth they are more liable to die than when cut in the winter. The reason is that a far greater proper tion of the sap and vitality of the plant being above ground and thus cut off and destroyed, there is a smaller power for recovery left than there would be if the cutting had occurred at a season when the growth is suspended, with the vitality largely in the roots. According to this, the cutting of briars and bushes during the summer months is likely to be the most effective. One cutting, however, is seldom enough for those most troublesome and persistent in their growth .- New York World.

SULPHATE OF COPPER FOR SMUT IN GRAIN. By soaking seed-wheat in a weak so-

lution of copper, the dreaded smut can The sulphate of copper is be averted. used at the rate of one pound to 400 pounds of wheat seed, and is prepared dissolving in warm water. The wheat should be in sacks which will admit the water, so that all the grain may get the benefit of the soaking. Three or four minutes is all the time required for the wheat to become thoroughly inturated, and when the sack is taken out of the mixture it should be placed in a draining trough to allow the water to escape. When the water in the barrel gets too low more can be added, and to keep up the strength of the solution more sulphate of copper should be dissolved and poured in the barrel now and then. This is not only a remedy for the smut in wheat, but for all grains subject to this disease. The sulphate of copper, also known as blue vitriol, is poi nous, and care should be taken that the stock get none of it, otherwise it might prove fatal. It does not seem to have any ill-effect on poultry and pigs, This remedy is in great use in the Pacific States .-- American Farmer.

CALF REARING.

A practical Strailordshire farmer, writing to the British Agricultural Gazette, says that after thirty years' experience in the rearing of calves on a large scale he | spring. has found it the most profitable branch of his business. It hardly needs to be added that he has made a business of it, that is to say, gone about it in a sensible and business-like manner, studying the conditions of success, and neglecting nothing likely to conduce to it. Some of his experience may be useful to others, and he has set a good example worthy of initation in freely giving the public the benefit of it. Calves, this gentleman says, should never be allowed to lie out in open pastures during the first year of their existence, but should be brought | tuted. pose he mixes them a gruel made of best troughs in the open yard, not more than be guarded against. ten or twelve calves being allowed to feed together. This prevents them from filling themselves with stagnant ditch water and a lot of unsuitable green food, by which they get distended and liable to various aiments, such as quarter ill, red water, and other things. The liquid mixture is continued up to the middle of November, when they are brought in from the pastures and put on cake, a due allowance of which during the first winter is indispensable to the future growth and well doing of every calf, whatever may seem simple, but coming from a indicate a better price for the crop, but oughly worthy of attention .- Rural work. Canadian.

sides will secure the drainage; but where the soil and subsoil are not favorable to side, a gravel road has been made for twenty miles, near the Mississippi River bluffs. This road is on a soil and a subsoil decidedly gravelly, giving splendid drainage. This gravel road is eighteen years old, and has proved satisfactory. The only means taken to se cure drainage was to crown the roadbed a little in low places. To make a gravel road in this way over the greater part of the same country would be a waste of money, for in most places the soil is a black prairie loam, and the subsoil a

tenacious clay. It has been found quite satisfactory in most localities, having a black surface soil and clay subsoil, to lay a drain of tile along each side, near the edge of the roadbed. This has been found a better location than near the middle of the roadway. The office of the tile is to carry off water brought up from below rather than water sinking in from above. In some localities it is necessary to use three drains-one line of tile be neath the center of the roadway, and one under each ditch at the side. It seems unnatural to put the tile under the side ditches, but this location has been proved heat When the roadbed is to be graveled

or macadamized, the crowning earth foundation should be nicely smoothed and then rolled until quite solid. It is well, also, in this case to put the clay subsoil from the ditches on to the sur-When rolled, it makes a hard, face. smooth surface, almost impervious to water, and over which will flow, off to the ditches at the sides, the rainwater that may sink through the gravel or macadam. When the surface is to be of earth only, the clay subsoil should be kept underneath, and the natural soil be placed on top. The surface soil will usually afford much better drainage than the subsoils, and make a better road

FARM AND GARDEN NOTES.

A hen wants quiet while setting.

It is good economy to feed milk to

surface.-American Agriculturist.

poultry. Stone drinking vessels are cooler than

tin ones. Brains without industry won't pay the

mortgage off the farm. Wheat is rich in material for growth

and stimulates egg-laying.

Young chickens especially are inclined to crowd on the roosts; prevent this.

The best remedy for the ravages of the asparagus beetle is a hea with a brood of young chicks.

Breed in June if you wish to have the colt foaled so that both it and the dam can be ready for new grass in the

If a change is to be made in the rations of a chicken it should be done gradually, so that the system may have time to adap; itself to the change. A good part of the care necessary

with turkeys and ducks during the next three months is to feed them enough to keep them coming home regularly. It will be more comfortable for the fowls during the warm weather if the heavy wooden door be taken off its hinges and one of fine netting substiit tender. into yards or sheds every night and A few extra dollars invested now in allowed as much good old hay as they will eat. They should also be given the come back to you with interest within a bucket the first thing in the morning be-fore they go out. For this latter pur-of the colt.

# HOUSEHOLD AFFAIRS.

BARLEY SOUP.

Excellent for sick people. Put a quarter of a pound of pearl barley to two quarts of water, boil it half away, add one cup of call's foot jelly, and the juice of a Seville orange. A few spoonsful a day of this excellent drink will often pre serve the life when the patient is unable to take anything else. It may be either sweetened with sugar or salted as a broth.-Farm, Field and Stockman."

MINCED CHICKEN WITH MUSHROOMS. Chop moderately fine one pound of chicken. Cut one-half pound of mushrooms in small pieces. Cover with water and let them boil. If canned mushrooms are used five minutes will be sufficient. Then skim out the mushrooms and set aside to keep them hot. Add, if needful, enough milk or cream to make a coffee cupful of liquid. Beat a table spoonfol of flour in a little milk until mooth and add a salt spoonful of sait, a scant half spoouful of pepper, and a tablespoonful of butter. Stir this mixture into the liquid, and when the whole has boiled three minutes add the mushrooms and chopped chicken and cook three minutes longer, stirring continually. Serve on a hot platter .- American

AN OMELET.

Farmer.

There are but few persons who seem o understand making the omelet. The eggs will separate and grow watery, or the mass will appear heavy and soggy, more like scrambled eggs than the fluffy object of their ambition. A very simple and reliable recipe is three eggs, half a cup of rich milk, a pinch or salt and a little dust of pepper. Beat the eggs thoroughly, then add the other articles and one even teaspoonful of corn starch mixed with about one fourth of a teaspoonful of baking powder. When this last is added, stir as quickly as possible and immediately pour into the buttered pan, which should b quite hot, but not so much so as to scorch the eggs. Do not attempt to turn

contact with the hot surface of the dish until quite done. Serve hot.-The Ledger.

the omelet over, but slide it about in the

pan, letting the uncooked part come in

A SAVORY VEAL PIE. A veal pie is improved by adding a

little ham, say one-half pound to a knuckle of veal. Just cover the meat with water, put in one small onion, and simmer one hour. Cut four potatoei into slices, cutting across the potato, and cook them separately until they can be pierced by a fork. At the end of the our cut the yeal from the bones and let it simmer au hour longer. Line a deep baking-dish or tin with plain paste, and cut the ham into dice. Into the bottom of the dish put a layer of potatoes, a ayer of the yeal with a few bits of the ham, a sprinkling of chopped parsley, salt and pepper. When the materials are all used, roll out the top crust and cut a hole in the centre. Lay over the dish and press down at the edges. Bake in a quick oven until the crust is a trifle brown, then put a funnel in the opening in the crust, and pour in a hot sauce made from an ounce of butter, two ounces of flour, and half a pint of the broth of the meat. Season the sauce with salt, pepper, and chopped parslev. -New York Post.

HOUSEHOLD HINTS. It is best to save all egg shells to

ettle coffee. To remove stearine, in all cases use

pure alcohol. To remove

# TEMPERANCE.

IT'S MY TREAT. Three young men were walking along on the

street; "Come, fellows!" said Tom with the best of intent, "Let's all have a drink--:t's my pleasure to Treat;" And into a ter-room they merrily went— For sons will treat and mothers must weep And habits be sown that will misery reap At the gildel bar a-groaning.

Three young men whose thirst had been quenched by one glass And wanted no mere ingered still at the

bar: "Now take one will tolaimed Dick, for, alas, He thought it the way to keep honor at

par-For men will treat for no reason at all Except from a fear to look stingy or small At the tempting bar a-moaning.

Three young men who hated the liquor they

Stool yet at the bar though they wanted "It's my turn to treat," "fill 'em up," Harry

And down their throats slid the demon of

For men will treat and be treated until

They love what at first was a nauseating ill At the deadly bar a-groaning.

If young men would sensibly sit down and think How foolish this custom of treating be-

And how it induces the habit of drink

That ruins their lives and destroys their sweet homes, Wives, mothers and sisters no longer would

weep, For those, being tempted, long agonies

reap At the heartlesf bar a-moaning. Or, if from good nature, young persons must

treat Then let them give what will be good to the end;

the end; A book or a paper or something to eat Will neither be harmful to them or a friend... For long as men treat fellow-men to the

worst

worst Themseives and their dear ones will ever be cursed At the devil's bar s-groaning. —H. C. Dodge, in Chicago Sun.

## OATMEAL VS. BEER.

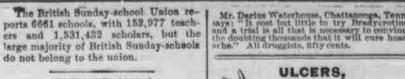
CATMERAL VS. REER. Beer as a sustaining beverage for work-men has received a severe blow from out-meal water. Five thousand men employed in reducing 200 miles of Euglish broad-guage wack to marrow guage were given oatmeal water only to quench their thirst, and the work was completed in thirty-four hours. It was thought impossible to ac-complish the leat without giving the men their regular allowance of beer.

### RIVALS FOR THE BAR-ROOMS.

NIVALS FOR THE BAR-ROOSES. A glance at the bar-rooms of the great hotels of the city will convince the most skeptical that the saloon of to-day spares no pains or excense in catering to the finer tastes of its patrons, says Rev. Thomas Dixon, Jr., in Frank Leslie's Weekly. Men become drunkards often under protest. Thousands of young men go to the devil be-cause there seems to be nowhere else to ro. Suppose the ten thousand saloons in New York were opposed by five thousand coffee houses on the style of the Paglish establish-ments. Suppose they were fitted up as handsomaly and situated as well, and filled with good cheer, would not drinking be re-duced to a minimum? I do not mean so many dingy stores where

ducef to a minimum? I do not mean so many dingy stores where coffee and other temperance drinks, creams, and the like, are servet. What I mean is that they should be fitted in handsomestyle as social centros, with free reading rooms, lunch rooms, smoking rooms and assembly rooms. In other words, only suppose we should put forth assembly rooms. In other words, only suppose we should put forth the same labor and outlay toward sav-ing and elevating men as is now put forth to dawn them with alconol. It would be a big job, I grant. The decorations alone in fitting up of the Vendome barroom cost about \$40,000. There are single paintings among the rice treasures of art that adorn the Hoffman House bar valued as high as \$60,000. I have yet to hear of the every-lay young man who buys a keg of beer or whisky.

Linve yet to near of the every-iny young man who buys a keg of beer or whisky, takes it up to his chearless room, sits down over it, and drinks merely for the sake of drinking. The recent cosms of the tene-ment house population of New York taken by the Board of Health shows that 1,230,000 of our 1,600,000 inhabitants live in and third cass tenements-that is, they are homeless. Is it not time that we recognize the fact that the saloon has built itself into the social structure of modern life, and that we must seek here for one of the most im portant secrets of its power?



At Home Or Abroad You cannot be guarded against severe and dangerous attacks to throat and lungs without that greatest of all family melliones, Dr. Hox-ie's Certain Croup ture, *B* does not contain optim in any form, cannes no nausea. Sold by all provininent druggists, file, Manufac-tured by A. P. Hoxsie, Buttalo, N. Y.

The Italian Government has purchased Caprera, the island that was Garibaldi's

Beware of Clatments for Catarrh That Catalla Mercary. As mercury will surely desiroy the sense of mell and completely derange the whole sys-fere when entering it through the mecons sur-cept on prescriptions from reputable physi-dang as the damage they will do is ten fold to be good you can possibly derive from them. Half Catarrh Cure, manufactured by F.4. charts taken internally, and acts directly upon he blood and mucous surfaces of the system thay and the catarrh Cure be sure you get beying Half Catarrh Cure be sure you get the blood and mucous surfaces of the system thay and the catarrh Cure be sure you get the synthes. It is taken internally, and made the system of the system.

#### Pure and Wholesome Quality

Commends to public approval the California liquid laxative remedy, Syrup of Figs. It is pleasant to the taste and by acting gently on the kidney-, liver and bowels to cleanse the avstem effectually, it promotes the health and comfort of all who use it, and with millions it is the best and only remedy.

NERVOUS, billious, disorders, sick headache indigestion, loss of appetite and constipation removed by Beecham's Pills.

If afflicted with more even use Dr. Isaac Thomp son'sEye-water. Druggists sell at 25c, per bottle



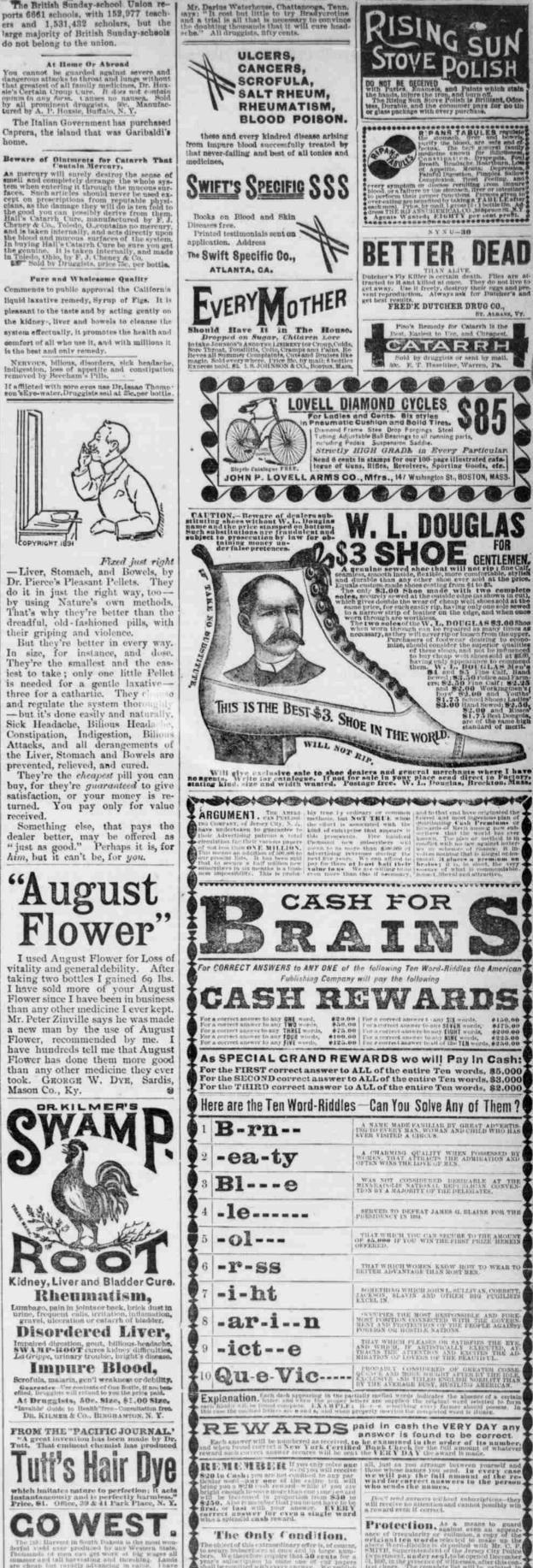
-Liver, Stomach, and Bowels, by Dr. Pierce's Pleasant Pollets. They do it in just the right way, too-by using Nature's own methods. That's why they're better than the dreadful, old-fashioned pills, with

their griping and violence. But they're better in every way. In size, for instance, and dose. They're the smallest and the easiest to take; only one little Pellet is needed for a gentle laxativethree for a cathartic. They c and regulate the system thoro-- but it's done easily and naturally Sick Headache, Bilious Heada Constipation, Indigestion, Bilious Attacks, and all derangements of the Liver, Stomach and Bowels are prevented, relieved, and cured.

They're the cheapest pill you can buy, for they're guaranteed to give satisfaction, or your money is returned. You pay only for value received.

Something else, that pays the dealer better, may be offered as "just as good." Perhaps it is, for him, but it can't be, for you.

Mason Co., Ky.





HOAD DRAINAGE.

road-earth, gravel, macadam or paved -is thorough drainage of the foundation, declares John M. Stahl, of Illinois. Money has been misapplied in road-mak-ing because of neglect of thorough used to build roads of a material that should give them a permanent character. On the Western prairies, where the natural drainage is poor, undrained gravel roads have suddenly become mud roads when put to the severe test of a long rainy spell in winter and early spring. Not the least unfortunate result of this has been a projudice against gravel roads in particular, and a scarcely loss pronounced distrust of permanent roads in general. Lack of drainage was the real cause of the failure.

Whether the road is to be of earth; gravel or macadam, the earth roadbed should be graded, crowning it twelve to fourteen feet wide, and twelve to eighteen inches higher in the middle than at the edges. Along each edge should be out a shallow ditch. This is a correct general statement, which, of course, should be modified to suit peculiar circumstances. Thus, in a very hilly The sheets are then soldered together to country, especially if the soil washes the size of the interior of the tea chest; easily, the ditches should not be cut at the tas is packed in, and the top sheet is face drainage. Twelve to fourteen feet in width is sufficient. Making the road acript. wider has been found a needless expense.

goadbed and cutting the ditches at the barrels a day.

While ducks will remain all day on Scotch oatmeal, at the rate of about a the water, they should not be made to penny-worth per day, mixed with half a sleep on damp floors. Plenty of straw gallon of water, and given in V shaped should be used and cold drafts should

> Much of the profit of the farm must come from saving little things. In this the chickens are a good aid. They pick up and turn to account many items that would otherwise be wasted.

Eggs that have not been fertilized keep the best, and for this reason if the eggs are to be stored away it is a good plan to take away the roosters ten days before commencing to save up the eggs. The new crop of wheat will come upon a market more nearly bare than for a it may be intended for. These few hints long time before. This would appear to successful, practical man they are thor- prophesying in such matters is uncertain

While, if properly managed, the storing away of eggs at this season for selling in the winter can readily be made The one thing necessary to a good profitable, there is always some risk. The eggs do not bring as good prices as fresh

The business of poultry-raising should never be spoken of slightly. Those who have tried it know that business ability, drainage, even when the money has been system and industry are essential to suc-These are just the qualities de-0288. manded for success in other lines.

#### Tea-Chest Lead.

One of the industries in connection with the tea trade is the collection of the lead with which tea-chests are lined. China has been noted for many centuries for purity of its lead, and this tea-chest lend, as it is called, is regarded as the finest in existence. There are many uses for it, it is found very valuable in making the best kind of solder. No machinery is employed in the production of this sheet lead; every sheet is made by hand in the most primitive fashion. A large in the most primitive fishion. A large brick is provided, the size of the sheet of lead to be r. A is covered with two or three she paper. On these the molten lead poured, and another brick is placed on the top, which flattens the lead out the required size and thickness. the sides, as they are not necessary, and fastened in place. The workmen are will become serious guilles. In a hilly very expert, and they turn out an immense number of sheets in the course of roadhed so high, but the crowning must a day, and, where labor is so cheap, at a always be sufficient to insure ready sur- price much less than if the articles were produced byamchinery .- Boston Tran-

With those soils and subsoils specially The capacity of the largest flouring well adapted to drainage, crowning the mill in Minacapolis, Minn., is 15,300

wash away with ether.

In cooking tough meat or an old fowl, add a pinch of soda to the water to make

Pearl knife handles should be rubbed with a salt rag dipped in fine table salt, then polished with leather.

Finger marks may be removed from varnished furniture by rubbing well with very little sweet oil on a soft rag. A little soap and warm water applied frequently is better for cleaning your

acquered brass than all the cleansing materials in the world. To select a fish see that the flesh is firm when pressed by the finger, and the

eyes full. If the fish is at all stale the flesh will be flabby and the eyes sunken. It is said that if the woodwork in the kitchen is kept constantly scrubbed with

water in which potash has been dissolved, roaches and auts will speedily disappear. To sweeten salt pork, cut as many slices as you will require for breakfast

and soak till moraing in sweet milk and water; then rinse till the water is clear and fry. You can tell if a bed is damp by lay-

ing your hand glass between the sheets for a few moments. If the sheets are not properly dried the glass will be clouded.

Paper is a good and cheap material to cleanse utensils. Knives rubbed with it preserve their brightness; stoves rubbed hard with it every morning will remain clean and bright and polish will be saved.

A capital wash for stained boards is made by boiling one-half pound of slaked lime and one pound of soda in six quarts of water for two hours. Let this settle, then pour off the clear part for use.

Carpets, if well sprinkled with salt and then wiped with cloth squeezed out of warm water containing a sponaful of spirits of turpentine to every quart, will look bright and new, and will not be troubled with moths and buffalo bugs.

To remove iron spots and black ink from white goods use hot oxalic acid; dilute muriatic acid with little fragments of tin. On fast dyed cotton and woolen fabrics, citric acid cautiously and repeatedly applied; on silks nothing, as it is impossible to remove said stains from then.

#### A Musical Watch.

A musical watch about the size of an egg is now exhibited in St. Petersburg which performs a religious chant, with scenic accompaniments. Within is a representation of Christ with the Roman sentinels. On pressing a spring the stone rolls from the tomb, the sentinels fall down, the angels appear and the holy women enter the sepulchre, and the same chant which is sung in the Greek Church on Easter eve is actually performed. The watch was made by an ingenious Russian pessant during the reiga of Catuarine of Russia .- Philadelphis Ledger.

FREE TO ABSTAIN.

FREE TO ABSTAIN. The Sunday-school Times concludes a re-cent valuable article, entitled "A Sensible View of Total Abstinence," as follows "To-day it is evident that there is a dan-ger in whe drinsing. Unlike other articles of food and drink, alcoholic beverages so invite to excess by their vary use that their user is exposed to a peculiar temptation to indige in them more and more freely, until his appetite is hopelessly subject to their control. As a matter of prudence, therefore, it is manifestly safer to abstain from wine drinking than to run the special risks that it involves. No man can say that he is above temptation or beyond peril in this matter; for if he will but stop and look at the facts in the case, he will see that men fully his

temptation or beyond peril in this matter; for if he will but stop and look at the facts in the case, he will see that men fully his equal in intellectual power, in personal character, in strength of will, in social standinz, and in spiritual attainments, have already succumbed to the tempta-tion to drink to excess, while no men who was a total abstainer ever became a drunkard. Moreover, in view of the dan gers to others, who are under the influence of his example, in his family or in the out-side community, the man who can abstain from wine drinking ought to do it for the sake of those who look to him for wiss lead-ing. Grants, for example, in another sphere, that there be no sin in the thing itself, in the making of one's home, with one's family is a house where poissones swer gases find their way through the drain pipes into the living rooms; granted, also, that some dwellers in that house have remained ally, while others had died from the poissuoas-laden atmosphere, would it he wise or right to seek a home there for ome's self, or one's lovel one's, with the risk involved, while another house, of live advantaves, and of no loved one's, with the risk involved, while another house, of like advantages, and of no

unother house, of like advantages, and of no higher cost, that is wholly free irom such perils, is open to his encice! "In short, even though the Biole does not explicitly command total abstimence as the duty of svery child of God, the Bible evi-dently leaves it free to every child of God to be a total abstainer if he wishes to be; and therefore it is for the Christian believer to do, and to deem it his duty to do, that which, in the light of a 1 that he sees and knows, is the best and safest thing to do. Looking around him every man sees that knows, is the best and safest thing to do. Looking around him every man sees that better men than himself have become drunkards through attempting to be mod-erate drinkers; and he knows that there is no certainty i at he will not drink to excess if he drinks at all, while he is perfectly safe to long as he remains a total abstainer—as he is privilegei to remain. Every man sees, moreover, that his example in this matter is sure to influence some who are obviously weaker than himself, therefore that, if ho drinks at all, he may lead these persons to drink to excess. Having the choice between drinking and abstaining, and knowing that

drinking and abstaining, and knowing that by drinking he imperies himself and imperies others, while by abstaining he secure safety for himself and for others, how can be choose drinking without sinning?"

**A Veteran** Mr. Joseph Hem-merich, 523 E. 16th St. 8. Y. City, in 1862, at the battle of Fair Oaks, was stricken with Typhoid Fever, and after a lo struggie in hospitals, w discharged as incurab Consumption.

He has lately take Hood's Sarsaparilla, is Jos. Hemmerich. good health, and cordially recommens HOOD'S SARSAPARILLA as a genera blood purifier and tonic medicine, especia ly to his comrades in the G. A. R.

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