HELPING THE TOWN

HINTS AS TO MAKING THE HOME MARKET BETTER.

HANDLING OF FARM PRODUCE

How Merchants and Farmers Can Co-Operate to Their Mutual Advantage in a Business Way.

Many agricultural towns could be vastly improved by affording farmers better markets for the produce that they have to dispose of. In the radius of every country village there is sufficient butter and eggs and other products to be marketed, the handling of which would make a profitable business.

The custom that has prevailed for many years of storekeepers indiscriminately handling produce does not appear to be to the best interests of towns or it may be said, to the merchants or the farmers. In the first place the average storekeeper has no facilities for the proper handling of perishable products. He may not receive sufficient to enable him to dispose of the product to the greatest advantage. Therefore instead of making any profit upon what he handles, many times he is the loser and looks for his compensation in the trade that may be given him by the farmers who bring in the produce.

It is important to a town whether it is reputed to be a good produce market or otherwise. Where the farmer can receive a cent or two more for his butter and eggs he is likely to turn his attention. In some towns there are regular buyers of produce, but often these methods are such as to be unsatisfactory and result in loss of trade to the place.

Merchants generally exchange goods for whatever produce may be brought to them. In many places they will not pay cash, and it has been known where cash has been paid that it immediately found its way to some other town where goods was purchased.

Each town that has any considerable patronage from the farming community surrounding it, should have a small cold storage plant. One plan that has been found practicable in many towns is the organization of a produce company in which merchants of the town as well as the farmers are stockholders. These concerns provide every facility for the proper packing and storage of eggs and butter and other perishable produce, and sometimes include a butter renovating plant. Where such companies are operated the merchants refuse to handle produce, referring all who have such to sell to the produce company. The company pays the highest market price for what it buys. Instead of paying cash, due bills are issued which are accepted the same as cash at all the stores in town. Each week the merchants who receive these due bills in exchange for goods have them cashed at the office of the produce company.

By paying from a cent to two cents a dozen more for eggs or per pound for butter these produce companies have been wonderful factors in bringing trade to the place. Not alone do they benefit the town by bringing additional patronage to the merchants, but the business can be highly profitable if managed rightly. It requires but little capital to operate such an establishment. It is well when organization is taken up to limit the amount of stock that each shareholder receives to one or two shares of a par value of $50 or $100. An effort should be made to have as many merchants as possible shareholders. Also to secure as many shareholders among the farmers as can be had. It should be understood that instead of paying cash, farmers pay for their shares of stock in produce at prevailing market prices. With all the merchants in the town interested in the success of the company, and the farmers throughout the country also shareholders and participants in profits that may be made, it will be soon found that the produce company will be handling all the produce business that originates in the community.

In many localities where this plan has been put in operation the farmers have discovered that they could receive better prices for their butter and cream and eggs than under the old system. Being associated in a way with the business interests of the place they become more interested in all affairs of the town and are more inclined to work in harmony with the merchants towards anything that has the improvement of the home town in view. One of the desirable things about this plan is its tendency to lessen the practice of residents of rural communities trading with mail order houses and department stores in the large cities. Another admirable feature is the adding of an additional labor-saving industry to the town and the keeping of the earnings of the people in circulation in the community.

Reliable Sign of Death.

A Frenchman has received a prize for discovering a reliable sign of death. The test consists of the subcutaneous injection of a solution of flouresceine, which, if the blood is still circulating, in the course of a few hours causes the skin to turn yellow.

Wise Parson.

"Parson, somebody dared us to get married, and we never take a dare. Here we are."

"Well, my young friends. I dare you to go home and endeavor to cultivate some common sense."

WHERE THE MERCHANT FAILS.

An Iowa Farmer Tells Him He Should Advertise, and How.

An Iowa farmer contributes to the Des Moines Capitol the following very pertinent suggestion as to why the mail order houses succeed in getting the business of the rural communities away from local merchants:

"If the mail order houses got $1,000 out of this county each month that belongs to the home merchants the fault is with the merchants themselves. The mail order houses advertise and give us prices on everything they offer for sale. They tell us what they have and what they want for it. Of course we get soaked once in awhile and if we do we can try some other house. Most of the home merchants who advertise at all don't quote prices. They neglect to tell us what we want to know—the price. Of course we can go to the store and ask the price of this article, and that, but you know how it is—one doesn't know so well exactly what he wants to buy when he gets in a store as when he is at home. And there is where the mail order houses make their hit. They send us their advertising matter into homes and we read it when we haven't anything else to do and every member of the family who reads their stuff usually finds something that he or some other member of the family wants and many orders are made up and sent out just at such times.

"Right here is where the home merchant falls down. If he talked up his business to us in our homes the same as the mail order houses do the people would be in to see him the next time they came to town and in many cases extra trips would be made to get the things at once that we didn't know we wanted until they were brought to our attention.

"The home merchant can save the expense of getting up a catalogue. We people read the home papers more carefully than we do the catalogue, and if the merchant wants to talk business with us let him put his talk in the home papers, and put it in so that we know he means business. The home merchant likely, nine times out of ten, sells his goods as cheap as the mail order houses, and I believe on many things they are much cheaper, but how are we to know if he doesn't tell us about it.

"A merhant must not think that even his best customers know his goods so well that they can tell what he has without being shown.

"It is none of my business how the home merchant runs his business, but I don't like to see these roasts in the papers all the time about us fellows who get a little stuff shipped in once in awhile and never anything said on the other side. There are always two sides of a question, and I have given you mine. If it is worth anything to you you can take it."

BANKERS GETTING WISE.

They See Danger in the Mail-Order System of Business.

It is only lately that bankers of the west have come to a realization that the mail-order system of business has been a serious injury to them, killing off the business of their towns, taking out of circulation money that should help swell the local bank deposits and otherwise interfering with town progress.

The trouble has been with many bankers that they failed to consider the buying-goods-away-from-home evil as anything of particular concern to them. When Farmer Smith would buy a draft for $50 or $100 to send to Chicago, the banker got his ten cents exchange and thought he was that much ahead, while the facts remained that if he could keep the money from being sent from home that $50 of the farmer for the banker might make a dollar or two of profit. It was only when the catalogue houses started in to solicit deposits of the people of country towns and farming communities that the bankers took a tumble.

Then again some bankers have such an exalted idea of their position in the town that the goods to be had from the local merchants are not good enough for themselves and families, and set a bad example before the people by sending away themselves for what they desire in the way of staples and luxuries. Bankers are conservative; and are not forward in making suggestions to their patrons as to what they should do with their money, but in this matter it appears sufficiently important to justify the exercise of what influence the banker can command in behalf of home patronage. It is the business of the town and surrounding country that affords a profit to the bank. The greater this volume of business can be made the better for the banker and every interest of the town, and the farmers and other laborers as well.

D. M. CARR.

What, Indeed?

A duchess requiring a lady's maid had an interview with one, to whom after having examined her appearance, she said: "Of course, you will be able to dress my hair for me?" "Oh, yes," replied the girl; "it never takes me more than half an hour to dress a lady's hair." "Half an hour, my child!" exclaimed the duchess, in accents of terror, "and what on earth, then, should I be able to do with myself all the remainder of the morning?"

The Reason.

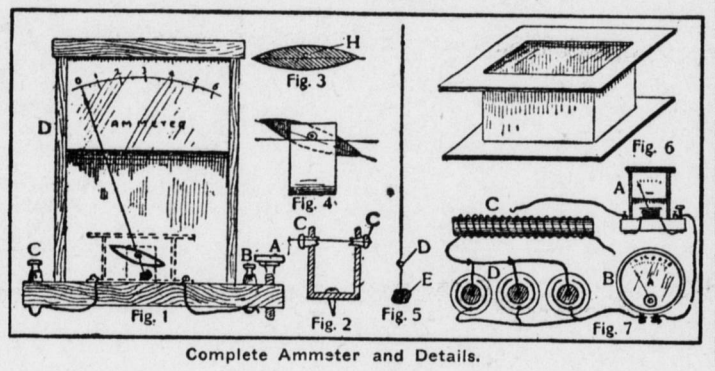
"In this settlement," said the Billville farmer, "we call all the literary fellers we kin ketch 'leadin'' authors, because as a rule they're powerful handy at leadin' mules to water."—Atlanta Constitution.

THE ELECTRICAL WORLD

HOW TO MAKE AN AMMETER.

Instrument Which the Amateur Electrician Will Want.

Every amateur mechanic who performs electrical experiments will find use for an ammeter and for the benefit of those who wish to construct such an instrument the following description is given: The operative principle of this instrument is the same as that of a galvanometer, except that its working position is not confined to the magnetic meridian. This is accomplished by making the needle revolve in a vertical instead of a horizontal plane. The only adjustment necessary is that of leveling, which is accomplished by turning the thumb screw shown at A, Fig. 1, until the hand points to 0 on the scale.



Complete Ammeter and Details.

First make a support, Fig. 2, by bending a piece of sheet brass to the shape indicated and tapping for the screws, C. C. These should have hollow ends, as shown, for the purpose of receiving the pivoted axle which supports the hand. The core, Fig. 3, is made of iron. It is one inch long, one-quarter inch wide and one-eighth inch thick. At a point a little above the center, drill a hole as shown at H and through this hole drive a piece of knitting needle about one-half inch long, or long enough to reach between the two screws shown in Fig. 2. The ends of this small axle should be ground pointed and should turn easily in the cavities, as the sensitiveness of the instrument depends on the ease with which this axle turns.

After assembling the core as shown in Fig. 4, it should be filed a little at one end until it assumes the position indicated. The pointer or hand, Fig. 5, is made of wire, aluminum being preferable for this purpose, although copper or steel will do. Make the wire four and one-half inches long and make a loop, D, one-half inch from the lower end. Solder to the short end a piece of brass, E, of such weight that it will exactly balance the weight of the hand. This is slipped on the pivot and the whole thing is again placed in position in the support. If the pointer is correctly balanced it should take the position shown in Fig. 1, but if it is not exactly right a little filing will bring it near enough so that it may be corrected by the adjusting screw.

Next make a brass frame as shown in Fig. 6. This might be made of wood, although brass is better, as the eddy currents set up in a conductor surrounding a magnet tend to stop oscillation of the magnet. (The core is magnetized when a current flows through the instrument.) The brass frame is wound with magnet wire, the size depending on the number of amperes to be measured. Mine is wound with two layers of No. 14 wire, ten turns to each layer, and is about right for ordinary experiment purposes. The ends of the wire are fastened to the binding-posts, B C, Fig. 1.

A wooden box, D, is then made and provided with a glass front. A piece of paper is pasted on a piece of wood, which is then fastened in the box in such a position that the hand or pointer will lie close to the paper scale. The box is five and one-half inches high, four inches wide and one and three-quarter inches deep; inside measurements. After everything is assembled put a drop of solder on the loop at D, Fig. 5, to prevent it turning on the axle.

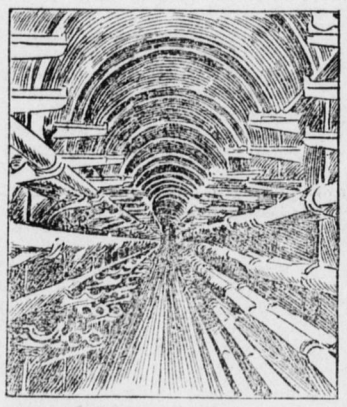
To calibrate the instrument connect as shown in Fig. 7, where A is the home-made ammeter; B, a standard ammeter; C, a variable resistance and D a battery, consisting of three or more cells connected in multiple. Throw in enough resistance to make the standard instrument read one ohm and then put a mark on the paper scale of the instrument to be calibrated. Continue in this way with two amperes, three amperes, four amperes, etc., until the scale is full. To make a voltmeter out of this instrument, further explains Poplar Mechanics, wind with plenty of No. 36 magnet wire instead of No. 14, or if it is desired to make an instrument for measuring both volts and amperes, use both bindings and connect to two pairs of binding-posts.

ARE OUT OF THE WAY.

System of Subways for City Pipes and Wires.

European cities are making great headway in the construction of subways beneath the streets to contain not only electric wires for light, power and communication, but also for the gas and water pipes. In London a subway for these utilities is now built whenever a new street is authorized. Some of the London subways are as large as seven feet high by 12 feet wide; there are already seven miles of these pipe subways.

In Manchester the subway has now reached a length of 7,386 feet, and is used exclusively for electric wires, which are contained in pipes carried on iron buckets fastened to the walls. The cost was $39 per linear foot. Other cities where the system has been built are Leeds, Nottingham and St. Helens. The construction is paid for by the city, which charges an annual rental from the service companies, which more than pays the interest on the cost. These annual charges are based on the diameter of the pipe, ranging from 60 cents for three-inch diameter or less up to $12.50 for 36-inch per foot for water or gas. For other companies the rate is much higher, being $6.50 for three-inch pipes and $20 for 18-inch per 300 feet. The freedom from leaks in water and gas mains, and the ease and economy with which repairs can



Manchester Subway.

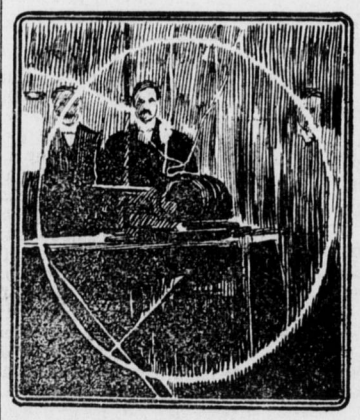
be made make the proposition an interesting one to the tenant companies.

Our American cities should take up the pipe subway question, declares Popular Mechanics, and not only provide a revenue producing power for all time to come, but save the everlasting tearing up of the streets.

SINGING ELECTRIC ARC.

Is Made Vocal by Connection with the Microphone.

It has been known for some time that the electric arc could be made vocal if attached to a microphone. The discovery was made by M. Simon and was developed by Auhmer. Further improvements were made by M. Poulsen, who lately explained his instrument at the Queen's hall, London. At the children's lectures at the Royal institution the lecturer, Mr. Duddell, who had independently discovered and made practicable this property of the electric arc, showed his small audience how it might be used as a telephone. His assistant, Mr. Turbini, went into another room taking with him a microphone—an ordinary transmitter—attached to the arc lamp by a flexible wire. He then whistled into the microphone an operatic selection, and the tones emerged from the arc lamp and were distributed over the theater.



Ten Thousand Electric Sparks Per Second.

The experiment here illustrated was made by an Italian scientist, Signor Majorana, in explanation of M. Poulsen's invention. Each of the sparks was quite independent.

Vacuum and Insulation.

The remarkable heat-insulating effect of a vacuum is strikingly brought out in the claims made for a new sportsmen's bottle. The vessel has double walls, being really one bottle within another, with a sealed-up intervening space from which the air has been withdrawn. It is asserted that liquids in this bottle can be kept hot 48 hours in the coldest weather, and that iced beverages will retain their delicious coolness for weeks in the hottest summer.