



MEATS IN GERMANY.

Almost a Famine.—Improved Methods of Slaughtering.

GUY ELLIOTT MITCHELL.

From time to time the United States Department of Commerce and Labor has received reports from its various consuls in Germany giving accounts of a meat famine in the Faderland. The scarcity of cattle in Germany is probably due primarily to the strict laws of that country forbidding importation of live stock from countries in which certain animal diseases are known to exist. The elaborate and complicated system of inspections and prohibitions imposed upon the importation of meats and domestic animals by the new meat inspection law of Germany, which went into effect a few months ago, had the effect of increasing the prices of pork, beef, veal and mutton by diminishing the available supply. On account of a few cases of Texas fever which existed among the cattle coming from the southern and Western part of the United States, live stock from that country are excluded; similarly because cases of foot and mouth disease were known to exist in Russia, Denmark and Sweden, cattle from those countries are likewise denied admission.

Soon after the new inspection law was put into effect the imports of live stock and meat supplies greatly decreased until the situation in Germany was extremely grave. Prices asked for dressed meat went quite beyond the reach of many working people in the

ways is very complete. Ample cleaning facilities are constantly employed and these in conjunction with powerful ventilating fans keep the establishment clean and odorless.

Every animal that enters the Berlin abattoir is inspected to see whether it is fit to kill. After animals are put to death those whose flesh is considered absolutely dangerous are destroyed. Owing to the prevalence of poverty the German authorities are unwilling to waste anything that can be saved. Animals killed are divided into four classes. The first class consists of meat which is thoroughly sound; this is allowed to go to general markets. The second class consists of animals having some small local disease which does not taint the bulk of the meat. The affected parts only are destroyed and the rest is sold directly to poor consumers in quantities not exceeding six pounds. The third class is that which is of a quality so diseased that it cannot be safely sold in a raw state. However, it may be eaten without detrimental results if thoroughly sterilized. It is accordingly subjected to a temperature of from 220 to 230 degrees in a steam boiler and then sold to the poor, like the rest. The fourth class animals are those which are so diseased as to merit total destruction. While it may appear loath-

ing in the orchard pasturing, the orchard with neither sheep or hogs resulted in better yields than those not pastured. The fertilized orchards yield an average increase of 55 bushels per acre over those to which no fertilizer had been applied. Data was collected of the value of spraying apples and it was shown that while 8,430 bushels of sprayed apples brought an average of \$2.02 per bushel, 6,365 bushels of unsprayed apples brought but \$1.80 per bushel.

The effect of distance between trees planted before 1880 was studied in its relation to yield. Taking figures from an average of four years it was found that trees planted 30 by 30 feet apart yield 188 bushels per acre; trees 31 by 31, to 35 by 35 feet apart, 222 bushels per acre, and trees 36 by 36 to 40 by 40 feet apart yield 229 bushels per acre a year. Observations in the counties showed that while the site is not a very important factor the best site is doubtless one that is sufficiently elevated to give good opportunity for air and for water drainage and not so high as to be especially exposed to the wind.

This survey of the New York section covering, as it does, the actual practices of farmers in two of the most important fruit-growing counties of New York, and giving the actual results in yields and income by different methods of treatment in hundreds of orchards, is on a sufficiently large scale to make the results obtained of more than usual value and interest. It is exceedingly gratifying to find that the cultural methods long recommended by experiment stations as a result of trials on a small scale hold true when applied to orcharding on a commercial scale.

Up-to-Date Weather Reports.

The latest work upon which the United States Weather Bureau has entered is a system of meteorological observations from vessels at sea by wireless telegraphy and the simultaneous issuance of weather forecasts and storm warnings to those vessels. The Weather Bureau has prepared a special code by means of which exact information as to date and hour, latitude and longitude of the vessel, atmospheric pressure, temperature, force and direction of the wind, and the character of the sky are all compressed into four words. As soon as any coast wireless telegraph station receives such dispatch from vessels, the message is to be delivered once to the Weather Bureau at Washington. Should the contents of this message be of such importance as to demand special storm warnings, notices will be prepared and dispatched by wireless telegraphy to all vessels in the vicinity affected. The value of such a service might be cited when the experience of the steamship Campana is remembered. On October 11 last, this liner was caught in a hurricane. The storm was found to have had no great area and it is stated by the Weather Bureau that had the system proposed been in use at that time, warning of its existence might have enabled the Campana and other vessels to avoid its center of activity. Another feature of great value in this



Scene in American Slaughter House. How they do it in Germany.

great busy cities. While it was reported that the butchers and meat merchants were taking advantage of the situation and charging double the prices, investigation showed that they were in reality in serious difficulties, for instead of increased profits they were making less money than before the law went into effect. A number of them announced to the municipal authorities their intention to relinquish their business. Mass meetings have been held by citizens and meat dealers with an endeavor to induce the authorities to make the meat inspection laws less stringent, but so far without result.

The model abattoir and cattle markets of Europe at the present time are to be found in Germany. There are extensive and well equipped establishments in several large cities, but those which are the newest with the latest improvements and regarded as the best of all are at the old university town of Halle and at Mannheim in the Rhine. These are almost duplicate plants.

As early as 1878 there were city abattoirs at Mannheim, one for Jews and one for Christians. In 1893 it was decided to construct a single new abattoir in connection with the new market. This was completed in May, 1900. This latter abattoir is a model of perfection, ample provision being made for receiving animals and shipping dressed carcasses. The visitor does not receive suggestions of slaughtering through any appearance of blood on surrounding walls, nor does he smell it in the air, as in many of the American slaughter houses. Buildings are of brick, stone, iron and glass, of good appearance, substantially and admirably adapted to their respective purposes. All are supplied with hot and cold water, live steam, electric lights and either steam or electric power. These operate a great variety of mechanical labor-saving appliances. The hotting apparatus is handled so that manual lifting is almost wholly avoided, and by suspended tramways, carcasses and other heavy parts may be moved in all directions in the killing halls. Artificial ventilation is also provided so that every apartment may be supplied with currents of fresh air, dry, and either cold or warm as desired. The rooms for slaughter are large, light and airy. Instead of little pens as is the usual case in France, the arrangements at Mannheim are for a separate hall for every kind of animal and a regular corps of licensed butchers is employed by the establishment.

Butchering is, comparatively speaking, humanely done. The large animals are killed by a percussion gun attached to the head with a mask, and the smaller ones are stunned by a blow on the head and then bled. Of course, the Jewish butcherer is accomplished by a different method and according to the rites prescribed by that religion. Inspectors are present to supervise the slaughter and every quarter passed and approved for market is properly branded.

some to American people to have a housewife buy meat from diseased animals, yet under such a system as is adopted in Germany, when one goes to the market house to buy a piece of sound meat he is assured of getting it. He at least does not buy bad or diseased meat, thinking it is first rate.

Apple Growing.
The Department of Agriculture often receives communications from farmers who are maintaining that the practical agriculturist does not have much faith in experiments conducted at experiment stations, as they are on such a small scale that great weight cannot be attached to the results. The statement is made that these experiments made on a large scale or under conditions such as confront the farmer himself, they might prove more valuable. Taking this standpoint as a rule to follow the New York experiment station through the Department of Agriculture has reported the results of an examination of 1,133 apple orchards covering 8,642 acres in Wayne and Orleans counties, New York. Both of these counties are extensive apple growing regions. In one township every or-



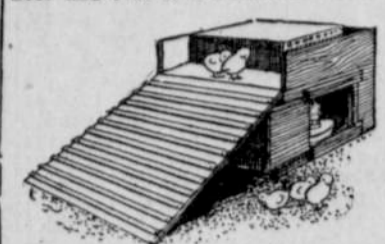
A PROFITABLE APPLE TREE.

chard as large as an acre in extent was visited. Observations were made on such factors as location, site, aspect, soil, management, distance between trees, pruning, present condition of the orchard, orchard troubles, etc. The agent of the New York station found that for orchards tilted five years or more there was an increased yield of about 80 per cent. over orchards which had been five years or more in soil. This greater yield in the tilted orchards was found not to be due entirely to cultivation, as the man who tills his orchard usually gives it better care as regards fertilizers, spraying, pruning, etc.

Figures were compiled of orchards in soil which were used as pasturage for live stock. While it was found that hogs were least and cattle most

A Brooder for a Dollar.

The Department of Agriculture has recently published a method of constructing a chicken brooder, the total cost of which might come well within \$1.00. Such a brooder has been given careful trial by the Connecticut experiment station, and has given excellent results when used in a shed or colony house. The lower section of the brooder which contains the lamp for heating is a box 3 ft. square made of 10 inch boards and covered with tin or galvanized iron. About this cover, around the edges of the lamp box, one inch strips are nailed. Two one inch holes are bored through these strips on each side of the box for the purpose of ventilation. A floor of matched boards is laid on the strips. A hole 8 inches in diameter is cut in the center of this floor and over it is turned an old tin



THE DOLLAR BROODER.

pan 10 inches in diameter, the sides of the pan being full of holes to allow free circulation of heat. Over this is placed a table 2 feet 6 inches square with legs 4 1/2 inches high. Around the sides of this table is tacked a curtain of old felt cut from top to bottom at intervals of five or six inches to allow the chicks to pass in and out at will, the whole being surrounded by boards 4 inches high and 3 inches long nailed together at the corners and resting on the floor of the brooder. When the chicks are ten days old one of these boards may be taken away and the bridge used so that the chicks may run from the hover to the floor of the room. The description of the brooder can be found in Farmers' Bulletin No. 287, which can be had upon application to members of Congress or to the Secretary of Agriculture.

Double-Yolked Eggs.

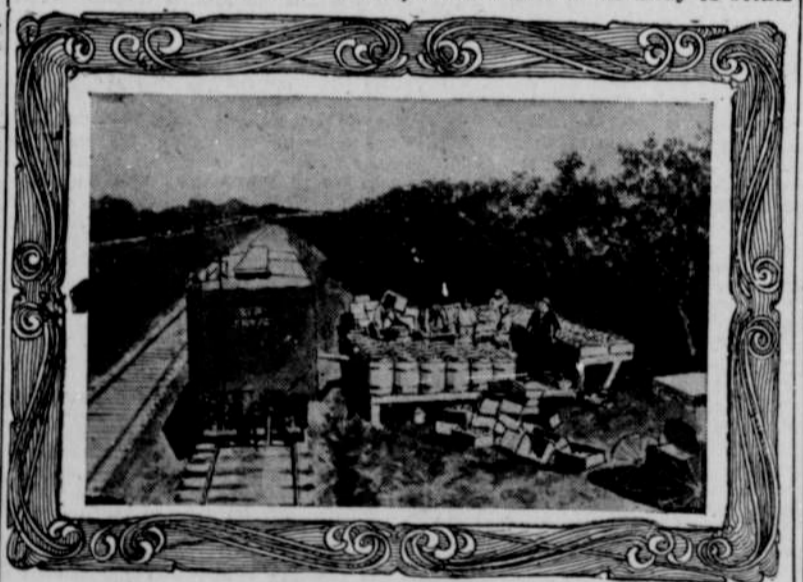
Squire Meadows, who lived down at Four Corners, was classed as a "mean old son-of-a-gun." He didn't mind buying new farm implements every year and allowing them to rust and ruin out in the winter rains and snows, but he would not buy his wife a sewing machine or a dish-washing machine to lessen the labors of housework. She was never allowed spending money, and whenever anything necessary was wanted for the house the Squire always went himself to the village store and made a trade of some farm stuff for the article desired.

One day the good wife wanted a package of darning needles, and told her husband so.

"Now, Abigail," he said, "what's ther use of gettin' so 'stravagant? Winter's comin' on, an' ther's that fodder enter ter buy; can't yer get along somehow with less?"

The argument ended by a reduction to a single needle. Squire Meadows took a fresh laid egg down to the country store and inquired of the storekeeper whether he would trade a darning needle for an egg. The owner was willing and the trade was made. Now it seems that this store, in addition to being a grocery, dry goods establishment and post office, was also one where liquid refreshments were dispensed. The owner was known as a man of great cordiality to his customers, often inviting them to a "treat on him."

The Squire, having made one trade, looked around at the array of bottles



PACKING APPLES FOR SHIPMENT.

proposed system is that the Weather Bureau will thus be enabled to send trans-Atlantic liners and other vessels, information as to the limit of fog or ice on the Grand Banks so that they may slightly alter their course they may steer clear of these dangers.

SECRETARY SHAW WAS LATE.

He Narrowly Escaped "Call Down" by Vigilant Watchman.

Secretary of the Treasury Shaw was three minutes late in reaching the Treasury Department the other morning and narrowly escaped being held up by the vigilant watchman at the door. It was raining when he arrived, and he hurried through one of the seldom used entrances to the building. It is one of the regulations of his department that all employees arriving late shall register the time of their arrival at a desk near the entrance.

Mr. Shaw did not consider himself amenable to this regulation and hurried to the elevator to go to his office, on the second floor. The watchman noticed his apparent carelessness in not registering, and, not recognizing him, hurried after the Secretary to remind him of his neglect.

When the watchman reached the elevator, however, he heard the conductor address his passenger as "Mr. Secretary."

The watchman's activity ceased immediately. Secretary Shaw remarked later in the day that he was sorry he did not go back and register, as all good employees are required to do.

on the shelf, and, smacking his lips, said: "Why, say, look yere Perkins, they say yer treat yer customers pretty well at times ter somethin' stronger'n water?"

"Sure," responded the storekeeper, "What'll yer hev?"

"Oh, I guess mine'll be sherry'n egg."

Perkins went over to the shelf, brought out the egg just traded in by the Squire, broke it into the glass and was prepared to pour in the liquor, when Meadows yelled out:

"Say, look yere, Perkins, 'at ther egg I brung yer is a double-yolker; don't yer owe me another darning needle?"

The Future Mikado?

They can do things in Japan we could never even dream of doing. The imperial family of Japan dwells together in harmony under circumstances that would cause domestic discord, if not absolute disruption, in an everyday American family. Her majesty the Empress is several years older than her illustrious spouse, the Mikado, and though she is not the mother of the five children—the crown prince and four princesses—of whom the Emperor is the father. In case she should become the mother of a son, which, as she is fifty-six years old, is exceedingly improbable, the illegitimate children of the Emperor would have to stand aside. Now they are accorded the full honors due to members of the imperial family.

DO YOU USE ACETYLENE?
If so, we want to send you
A SAMPLE BURNER

We believe we have the very best and the cheapest line of Acetylene Burners. Our sample will show better than we can explain here why it would pay you to use burners.

Write us today, mention kind of Generator used, enclose 8 cents in stamps to cover postage, and we will send you
A SAMPLE BURNER.

W. M. CRANE COMPANY, 1131-33 Broadway, Room 15, NEW YORK, N. Y.

The Most Satisfactory Light

The Angle Lamp is not the only method of lighting your home but takes all in all, it is the most satisfactory.

For while it floods your room with the finest, softest and most restful light, making your home more cozy and inviting, it requires almost no little attention to operate as either an oil or gas or electric light, is as simple and convenient to operate as either and usually costs less to burn than the ordinary troublesome oil style lamp.

Our Catalogue "L" (sent free on request) explains how this new principle applied to burning common kerosene has so completely done away with all the smoke, odor and bother of ordinary lamps that such people as Messrs. Cleveland, the Rockefellers, Carnegies, Cookes, etc., wouldn't think of using ordinary lamps, even when they are new.

—THE—
Angle Lamp

For lighting their homes and estates in preference to gas or electricity, gasoline, acetylene, or any other method of lighting.

This Catalogue tells how the special Angle burner and the shape of the glassware (see above illustration) give combustion so perfect that the Angle Lamp never smokes or smells whether burned at full height or turned low; why the lamp is lighted and extinguished like gas; the advantages of having the under-shadows of other lamps done away with completely, also why the Angle Lamp burns 75 to 80 per cent less oil than any other for the same amount of light. And then offers you a 30 Days Trial.

Send for your free copy of the book. Before you forget to be-lieveless turn over this leaf-let for catalog "L." Listing 80 varieties of the Angle Lamp from \$1.50 to \$15.00. **THE ANGLE MFG. CO., 75-80 Murray St., New York.**

"Food For Plants"

A handsomely illustrated 250-page book answers every question about the value of Nitrate of Soda as a fertilizer. Prepared and published for free distribution by the Nitrate Propaganda, 12 John St., N. Y.

Send name and address on post card for a copy of the book.

Nitrate Propaganda, Anderson Building, New York

FREE This book is being sold for 25¢ per copy. It is a beauty. Ten keys, 3 steps, mounted case, double blade, protectors and clasp. For 25¢ send for it. For 50¢ send for it. For 75¢ send for it. For 1.00 send for it. For 1.50 send for it. For 2.00 send for it. For 2.50 send for it. For 3.00 send for it. For 3.50 send for it. For 4.00 send for it. For 4.50 send for it. For 5.00 send for it. For 5.50 send for it. For 6.00 send for it. For 6.50 send for it. For 7.00 send for it. For 7.50 send for it. For 8.00 send for it. For 8.50 send for it. For 9.00 send for it. For 9.50 send for it. For 10.00 send for it. For 10.50 send for it. For 11.00 send for it. For 11.50 send for it. For 12.00 send for it. For 12.50 send for it. For 13.00 send for it. For 13.50 send for it. For 14.00 send for it. For 14.50 send for it. For 15.00 send for it.

WOODLAWN NURSERY, MALDEN, MASS.

HOW TO MAKE SCHOOL GARDENS.
By H. D. Hemenway.

This suggestive little book is a practical manual of school gardening for both teacher and pupil, and supplies the first adequate work of the sort in this country. This volume is based on actual experience (the author is an authority and director of the Hartford School of Horticulture).

CONTENTS: Introduction; How to Make a Garden; Twenty-One Lessons in Garden Work—May to September; Bibliography; Lessons in Greenhouse Work; Planting Seed, Potting, etc.; Root Grafting; Lessons in Budding.

Size, 5 x 7; pages, 107; binding, cloth; illustrations, 26.

By special arrangement with Doubleday, Page & Co., I am able for the present to make the following
SPECIAL OFFER.

The new Garden Magazine, 6 months, and How to Make School Gardens, \$1.00 edition, postpaid, both for \$1.00.

The GARDEN MAGAZINE is finely illustrated, and is the finest magazine of its kind published in America. To take advantage of this special offer, orders should be sent at once to H. D. Hemenway, Hartford, Connecticut.

This offer may be withdrawn at any time.

WING PIANOS
Are Sold Direct From Factory and in No Other Way
YOU SAVE FROM \$75 to \$200

When you buy a Wing Piano, you buy at wholesale. You pay the actual cost of making it with only one wholesale profit added. When you buy a piano at retail you pay the dealer's store rent and other expenses. You pay his profit and the commission or salary of the agent or salesman he employs—all these at the expense of the dealer himself. The retail price of a piano is from \$75 to \$200. Isn't this worth saving?

SENT ON TRIAL ANYWHERE
WE PAY FREIGHT. . . . NO MONEY IN ADVANCE

We will place a Wing Piano in any home in the United States on trial, without asking for any advance payment or deposit. We pay the freight and all other charges in advance. There is nothing to be paid either before the piano is sent or when it is received. If the piano is not satisfactory after 20 days' trial in your home, we take it back entirely at our expense. You pay us nothing if you are under no more obligation to keep the piano than if you were examining it at our factory. There can be absolutely no risk of expense to you.

Do not imagine that it is impossible for us to do as we say. Our system is so perfect that we can town in any part of the United States just as easily as we can in New York City, and with absolutely no trouble or annoyance to you, and arrival either by freight or any other expedient. We take old pianos and organs in exchange. A guarantee for 12 years against any defect in tone, action, workmanship or material is given with every Wing Piano.

SMALL EASY Payments MONTHLY

In 38 years over 42,000 Wing Pianos have been manufactured and sold. They are recommended by seven governors of States, by musical colleges and schools, by prominent church leaders, pianos are in your own State, some of them undoubtedly in your very neighborhood. Our catalogue contains names and addresses.

Mandolin, Guitar, Harp, Zither, Banjo

The tones of any or all of these instruments may be reproduced perfectly by any ordinary player on the piano by means of our Instrumental Attachment. This improvement is patented by us and cannot be had in any other piano. WING ORGANS are made with the same care and sold in the same way as Wing Pianos. Separate organ catalogue sent on request.

YOU NEED THIS BOOK
If You Intend to Buy a Piano—No Matter What Make

A book—not a catalogue—that gives you all the information you need at the different making stages of a piano. It tells you the different parts of a piano, the different makes, the different prices, the different ways of getting out of order and in fact is a complete manual to get you the selection of a piano. If you read it, you will know exactly how to buy a piano and how to get the best value for your money. It tells you how to test a piano and how to tell good from bad. It is a book that every piano buyer should have. It is a book that every piano maker should have. It is a book that every piano tuner should have. It is a book that every piano dealer should have. It is a book that every piano owner should have. It is a book that every piano lover should have. It is a book that every piano enthusiast should have. It is a book that every piano aficionado should have. It is a book that every piano connoisseur should have. It is a book that every piano expert should have. It is a book that every piano master should have. It is a book that every piano virtuoso should have. It is a book that every piano prodigy should have. It is a book that every piano genius should have. It is a book that every piano prodigy should have. It is a book that every piano genius should have.

WING & SON
358-360 W. 13th St., New York
1808-38th Year-1900