## SWIFT & COMPANY'S GREAT PACKING PLANTS

What Portland May Expect When the Mammoth Concern Begins Operations Here.

BY PROF. FREDERICK BERCHTOLD. Oregon Agricultural College. Corvallia S SOON as it shall be in successful operation, the \$3,000,000 packing plant of Swift & Company will become one of the standard sights of Portland. To come to the city then and neglect to see that plant and the yards would be as inexcusable as it would be to go to Pittsburg and overlook the steel mills. The average citisen can have no adequate conception of the activities to which such an enterprize will give rise.

Nor will the results be merely of local importance. The material advantages that will accrue to Portland and contiguous territory for hundreds of miles, cannot now be computed, but I will be vigorously felt the moment the plant opens for business. It will mean a happy repetition of the remarkable experiences of Kansas City, Omaha, St. Fort Worth and St. where branch plants were established. Farm values will immediately jump a notch or two. The cattleraisers, sheepnien, hograisers and poultrymen will have a new incentive to put life into their respective industries. Once the enterprise is fairly on its feet, the capacities of all our common carriers will likely be sorely taxed; every avenue of trade and transportation will find it-self enlivened by a new and powerful impulse, and hundreds of workingmen now dissatisfied with present conditions will find new, congenial and remun-erative employment.

Portland is certainly to be congratu-lated on the acquisition of this new in-dustry. The very fact that this city was chosen by a firm to whom the whole great Northwest was open, and for whose business alluring induce-ments were held out and strong fights made by powarful rivals, would again pointedly show the superior advantages of the metropolis of Oregon as an in-dustrial stronghold, and emphasize dustrial stronghold, and emphasize anew its strategic, yes, invulnerable position as a center of trade and com-

There will be no uncertain move ments, no experimenting in connection with this business. It is not a puling infant, nor yet a sentimetal youth, but reached mature mahood a ood while ago. Every step that will be taken will be the result of sustained reflection and careful calculation; there will be no floundering as in troubled waters, or groping in the dark. The men who have projected this enterprise stand high in the financial world, and the business is strongly and proadly conceived. The capital stack broadly conceived. The capital stock of the company, consisting of 500,000 shares at \$100 a share; making a capitalization of \$60,000,000, is fully paid up and is owned by about 12,000 persons. For last year this company's total distributive, sales exceeded the enough distributive sales exceeded the enormous sum of \$240,000,000. For the last nine years this stock has returned 7 per cent per annum, and the dividend is payable quarterly.

10 cars to the train; this irrespective thrust and cut is delivered, and every of the immense local sales of the company's output in such cities as Chicago, Kansas City, Omaha, St. Paul, St. Jo-seph, Fort Worth and St. Louis, where the company owns packing plants, and man having his separate duty to perform where there is a very heavy local sale.

As to the number of animals that pass clock-work. Some are busy removing the the company owns packing plants, and where there is a very heavy local sale.

As to the number of animals that pass to the cooling-rooms every year, the figures are too great to be grasped with anything like an adequate conception of what, in amount of work done, they really mean. The total every year soars to the aimost inconseivable figure of \$250. oco, comprising cattle, sheep and hogs on sliding rails to the cooling rooms, slone, leaving out of consideration the hundreds of thousands of fowls which the separate poultry plants turn out. In all of the seven great Swift plans as many as 11,575 cattle, 16,555 sheep and 34,562 hogs have been transformed but drawn as transformed but drawn been transformed but drawn been position of the bubble bear been transformed but drawn been position of the bubble but as the cooling rooms, where and state of the cooling rooms, where, in a temperature of 14 degrees, the meat is gradually cooled, though not form and attractive to the eye, as 11,575 cattle, 16,555 sheep and 34,562 bogs have been transformed into dressed sent into every portion of the habitable ment in a single day.

In 1908 the combined plants consumed 600,000 tons of coal and used \$5,500 electric lights, the generators having a rated capacity of 6635 kilowatts. For smoking meat, they burned 9000 cords of hickory wood, while for curing hams and bacon it took the enormous number of 110,000 tons of salt and 2,882,598 pounds of sugar. For shipping lard, 6,744.718 tins were required and the number of barrels and tierces that were needed for meat, sausages and other products exceeded the mark by more than 300,000, Nearly all this tremendous business was transacted through the mails in over 2.500,000 letters, necessitating a daily outlay on the part of the company for \$150 for stamps alone, to which should be added the cost of sending over 700,000 A business on a truly prodigious scale; one which, once established in a city or town, must have an instant effect on the pulse of business activity.

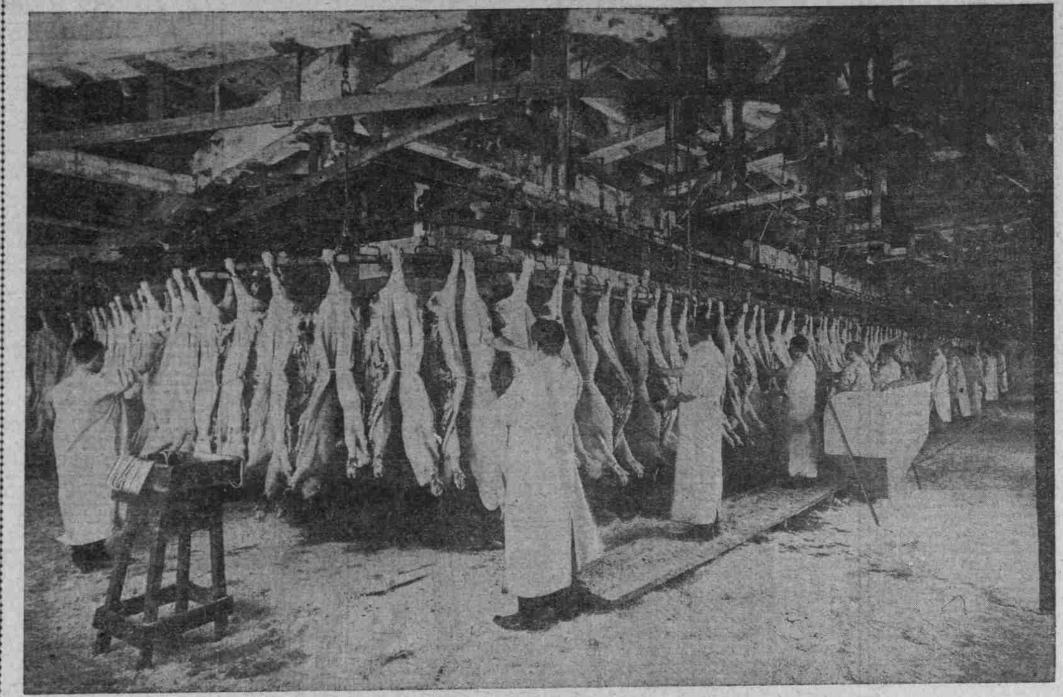
The most important animal and numerically by far the strongest in the economy of the packing plants of Swift & Company, is the hog. The very large number of pens in the stockyards are number of pans in the soccyarus are practically never empty. In its Chicago yards the company has atorage capac-ity for 70000 live hogs. They are not dressed the same day they are brought from the yards, but are allowed to rest until the day after their arrival.

From their resting pen they are then raised by an automatic hoisting wheel which passes the shackle hook on the hog's hind foot to a sliding rail on which the animal passed the skilled dispatcher who, at the rate of 1000 an hour, with one thrust of a double-edged knife, painlessly bleeds the animal and starts it on its journey to the large cooling rooms. In the short space of 3 minutes, the work is done; the hog is completely dressed, which terms includes the operation of scraping, taking out the leaf fat, split-ting down the backbone, trimming and acrubbing with hot water. Down through scrubbing with hot water. Down through floor after floor, room after room, passes this long line of 'pink-coated porkers' on their way to the dryroom which, in the Chicago plant, has a capacity of 17,000 hogs. Here they remain four hours, to allow the excess molature to leave the meat before going to the refrigerating room, where they are two days in chill at a temperature of \$26 degrees Fahrenheit, when they are finally ready for the helt, when they are finally ready for the chopping block

All meats intended to be smoked are first cured in a sweet pickle of sugar, sait and water, or dry sait, the period depending on the weight of the meat, 40 days being a fair average. The smoking process, as a rule, lasts from 30 to 43 hours, according to the size and weight of the meat, the hams, shoulders, sides and assuages, carefully separated, hams. of the meat the hams, shoulders, sides and sausages, carefully separated, hanging over show-burning fires of hickory wood. The hams and bacon are then wrapped in white parchiment paper and packed in various styles to suit the demand of the trade. Those for export to rigorous climates are packed in what is called 'Scalitia' wrappers, which keeps that the part for any length of time.

called "Scalitia" wrappers, which keeps them intact for any length of time.

A place of much less noise than the "perkheuse," in fact one of almost ominous silence, is the "beefhouse." Here, from the fatal thud of the long-handled sledge hammer on the broad forehead of the lordly steer to the last cut before refrigeration, just 29 minutes clapse. The 250 men in this department at Chicago can prepare for market 260 animals an hour.



SPLITTING BACKBONE OF HOGS-SWIFT AND COMPANY

A few years ago Swift & Company men work. Village butchers, professional made total shipments of ten carloads hunters and trappers have looked with for each working day. The daily shipments now would make 35 trains of absolute sureness with which every blow.

ness that prevails everywhere.

The whole department, like the one before, is a perfect bechive of industry, each

The operation of dressing sheep, taking not more than 26 minutes, is similar to that of dressing hogs, with the exception that the pelt is taken off and transferred to the wool factory, where the wool is removed, sorted into about 50 grades, and the skin prepared for tanning. Both products are then ready for the immediate use of the cloth and leather manufacturers. "Round-dressed" or "cauldressed" in about 15 different styles, the sheep are sent to the cooling room with-out being cut, except down the center. This cooling room is of the most modern construction, the walls being of concrete with cork insulation of two layers two inches thick, within which the refrigerat-

Choice selections of beef and pork to the amount of \$\tilde{T}\$ tons are daily chopped into sausage meat in the mammoh sausage factory of Swift & Co., perhaps the largest on this continent. Besides the justly famous Brookfield Farm Sausage and various appetizing cooked specialties, there is made a full line of Summer sausage. The latter, however, must be so carefully prepared and its ingredients so delicately proportioned that they will appeal to the tastes of different nations. For, strange to say, sausage that would delight the palate of our Scandinavian brothers, would find no sale in the German country; and the Frenchman would probably be seized with a sneezing fit if

prepared for his Spanish or Italian cous-ins. The Summer sausage is packed by hand. The meat intended for the other kind, after leaving the large, rotary cho ping-boards, is forced by pneumatic pumps into casings, twisted in the familiar links, the fresh sausage ready for wrapping and the rest forwarded to the

In what is known as "the lard filling room," the leaf fat, the back fat and the fat trimmings from the porkhouse are steam-rendered in large kettles, filtered and clarified. The substance, now registering 180 degrees temperature, of a fex-ture the purest white, is then cooled over rollers filled with ice water and carried in large pipes into air-tight tin palls, tubs and ironbound tierces of various sizes and bought into commerce as "Silver Leaf." perhaps the most widely distributed standard lard in the world. The Chicago plant has a dally capacity of 500,000 pounds or 550 tons.

urate a fattening process along recognized, scientific principles. These feeding structures, or "batteries," as they inches thick, within which the reirigeral of an extraction of atmosphere, under perfect ventiliation, is supplied by open brine system at a temperature of 25 degrees. Fabrenhelt. The Chicago plant has a capacity of 600 double rows of coops, built one above sheep per hour.

Choice selections of beef and pork to the supplied by the world of the sheep, the feathers of the chickens, ducks, geese and turkeys, all are made use of, absolutely nothing being permitted knowingly new to go to waste.

The fats are used in the manufacture of the sheep the feathers of the chickens, ducks, geese and turkeys, all are made of coops, built one above the other, five tiers high. The coops to waste.

fat, their meat tender and delicately flavored. They are then speedily but flavored. carefully dressed, transferred to the cooling room for a number of hours, there packed in boxes, a dozen to the box, placed in the refrigerator car and sped on their way to bring cheer to the tables of American men and women.

While the meat-packing business in the early stages was a highly profitable one, and even 15 or 20 years ago fairly remunerative, of late, under the tremendous pressure of competition, margins of profit have been shrinking more and more. Larger and larger plants became necessary; greater and greater outlay for machinery was unavoidable, and constantly increasing additions to operating capital grew simply imperative. ating capital grew simply imperative. Consequently, with every new step for-ward, the size of profits became more and more simply a question of economy in production.

The great dressed meat companies of that while he pays the cattle-grower for the great dressed meat companies of that while he pays the cathe-grower for the United States originally intended to confine themselves strictly to the packing of pork, beef and mutton or any one of the three. Competition be-maining 42 or 44 per cent is the great any one of the three. Competition between the 735 packing-houses of the country became, however, so intensely keen that the boldest of them, in a desperate attempt to outdo the others, introduced a fourth factor, poultry.

Unable to get birds properly and scientifically fattened, so as to rival the famous "poulardes" of France, the companies were forced to buy the birds in whatever condition they might be found, establish feeding structures of their own and then proceed to inaugurate a fattening process along recognized polarities. The fattening process along recognized polarities are stated in the science of economical production and transportation carried to its upmost limit of minute detail, as well as the rigid elimination of every possible source of loss. The fatte the as well as the rigid elimination of every possible source of loss. The fats, the lean-meat trimmings, the hair, the horns, the hoofs, the blood, the fibrous matter, this wool of the sheep, the feathers of

[ all judiciously mixed, the birds are | no one knew what to do with it. Today no one knew what to do with it. I roday it is carefully collected and cared for, and brings a good price per ton. Horns and hoofs which at one time constituted unsightly heaps near packing establishments, and could not be dis-posed of for love or money, today bring \$250 per ton the one, and from \$5 to \$60 per ton the other. From them are made barbers' combs, ladies' orna-

everyday life. The prices, however, are due to the scarcity of horns—the pres-ent breeding of dehorned cattle reducing the available supply to a small fraction of its previous volume. In every packing establishment today the blood from the slaughtered animals. in earlier days wasted, is carefully col-lected and dried. In this condition it is put on the market as a fertilizer and readily sells at \$40 per ton. The fibrous matter, which is the final

residue of the tissue structure after all the oil, grease and nutritious elements have been extracted, is likewise converted into fertilizer material, and sells from \$17\$ to \$24 per ton, thousands and thousands of which are used on the cotton fields of the South.

One of the most important of packinghouse by-products, used in over \$9\$ different industries, is glue, made principally from the cartilage and bones of the packing-house animal, fully 18 per cent of the latter being glue. The factory of Swift & Company, which runs night and day, turns out some eight million pounds annually, most of which goes to match factories and the manufacturers of sandpaper. Glue is the substance that holds the head of the match on the stick, and the particles of glass on the paper. have been extracted, is likewise the particles of glass on the paper From the finer and better fats of the animal, the kind which may readily be detached by cutting and pulling, is made an article that is now known the world over but dates its history back only about 40 years. It is—and you need not look so

standing in their profession as healthful, wholesome and nutritious as butter itself.

Oleomargarine is a composition of "cleo," (the highest grade of oil extracted from the butter fat of the animal) "neutral," (the purest lard after it has been put

through various filtering and refining processes) and ordinary milk and cream mixed in proper percentages. Butterine has had to make a strong fight for its existence but has now reached a sure place among staple food products. Its

rholesomeness and its low price, for it from 40 to 50 per cent cheaper than

butter, are strong sustaining qualities and the cause of its continued poularity. The Grout law, as it is known, is the only unfair hundicap placed upon this meritorious article requiring a tax of 10 cents per pound for the privilege of

using the same vegetable coloring matter that is used in butter. This is an in-stance of class legislation in a mis-guided effort to "protect" the dairy in-terests. In fact, it only increases the price to the poor man's table of one of

the Federal revenue previously received when a tax of 2 cents per pound was col-

lected by Uncle Sam from the manu-facturers of colored butterine.

Of the disposition of the enormous

quantity of feathers from the poultry de-

partment to pillow makers and uphol-sterers, and the daily output of ten tons

of wool to the clothmakers, it is hardly necessary to speak. Suffice it to any

that there can be no further expansion of efforts of getting more product out of the snimal. It is conceded by all that

the limit in this direction has been reached some time ago. The only field

In which operations may yet be extended is in the direction of manufacturing, at the packing-house itself, the large num-

ber of articles which now are made by independent establishments who procure the necessary raw material from the

packing-house.

amodities of daily use, and reduce

disdainfully—eleomargarine, or butterine These 'butter fats,' as they are some-times called, will average in weight from 50 to 75 pounds to the animal; and the toothsome article made from them has been declared by chemists of note and

Government inspector, whose trained and watchful eye would not tolerate the least irregularity nor wink at the slightest in-fraction of any of the very stringent rules enforced by Federal authority. The pres-ence of disease is discovered immediately and without fall, and an animal thus suf fering is condemned at once and ordered removed. There is absolutely no cause for distrust, the products are as good, as pure and as wholesome as human inmental head-combs, buttons, knife, cane and umbrella handles, and a variety of other articles used by the million in genuity can make them.

Would space permit, many more accessories or accompaniments of this great industry could be mentioned and discussed. The account would, however, be placed in their proper light. Portland sories or accompaniments of this great

impressed the writer most in his visita to the mammeth plant of Swift & Company, were left untouched; the attitude of the employers toward their employes, an army of over 25,000 men and women. Kindness and consideration are the key-words that explain the absence of even the least friction, and account for the exceeding loyalty of every worker to the manifold interests of the firm. Wherever you go, in every department of that wast plant, there is manifest that same thoughtful regard for the comfort and welfare of the tolling laborer. He is decently paid. He works in clean quarters, built according to hygienic principles, not the least of which is a most admirable system of ventilation. The rooms are cool in Summer and comfortably warm in cool in Summer and comfortably warm in Winter. The length of his working day is very reasonable. He may enjoy the quiet of a rest-room and can get the services of a barber, for instance, at merely nominal prices. There is not and the best of cold water everywhere. There is a restaurant where wholesome and nutritious food is furnished him at cost. Look at this menu and nonder what it Look at this menu and ponder what it

Pie 40
Prankforts 10
Oug of coffee 10
Doughnuts 10
Should he meet with an accident, there is a hospital where everything that human skill can do is done for

him, absolutely free of charge.

Indeed, at all times and everywhere, he feels that his superiors are his friends and his employers his willing benefactors who ask nothing of him ex-cept that he do his duty and conduct himself in all respects according to the rules and principles recognized by

decent society. In July, 1907, the Employes' Benefit Association was organized. It now has a membership of over 15,200, and has paid to date \$100,796.65 in benefits. The company furnishes office room and pays operating expenses of the associa-

The secret of the low cost of protec-tion to members is the fact of there be-ing no cost for collection of dues, which hold the same relation in the member-ship that premiums do to the ordinary

insurance policy.
In January, 1869, President Louis F.
Swift bad a certain portion of the
ten million increase in capital stock set aside to be subscribed for, at par, by employes upon payment of 10 per cent in cash, notes being taken for the balance at 6 per cent interest, dividend going to the employe in the meantime at the rate of 7 per cent. At the time of this subscription offer, stock was quoted on the open market at \$102 and \$103 per share. This offer was taken advantage of by employes generally, and a good many of them who other wise never save a hundred dollars were induced to invest their savings a little at a time, and in addition to providing for a "rainy day," they feel an interest in the corporation by which they are applicated. employed.

There is no doubt that along with other causes, of course, this friendly and generous attitude of capital toward labor has been one of the most impor-tant factors in the upbuilding and phenomenal growth of an industry that has now attained truly gigantic proper-

It can clearly be seen that in attract-ing this industry and adding it to the many already existing and flourishing. the State of Oregon in general and the City of Portland in particular furnish proof positive that the wonderful advantages and marvelous resources of this great commonwealth and its wideawake commercial center so long per-

## KEPT OPEN BY BAD BLOOD

Whenever a sore refuses to heal it is because of bad blood. circulation has become contaminated with impure, polluted matter which has not only diseased the blood, but also destroyed its plasmic or natural healing properties. The sore or ulcer therefore remains open, while the morbid discharge from the circulation into it, causes the place to inflame and fester.

Impurities in the blood which keep old sores open, come from different causes. A long spell of debilitating sickness, which breeds

disease germs in the system, is a common source. These morbid impurities get into the circulation, and the blood becomes a polluted, infectious fluid, which instead of nourishing the fibres and tissues of the flesh, irritates and ulcerates them by continually discharging its impurities into the place. Another cause for bad blood is the retention in the system of the refuse and waste matters of the body. Those members of the body whose duty it is to carry off the useless accumulations become dull and sluggish in their action and leave their work imperfeetly done, and this fermenting matter is absorbed into the circula-The weakening or polluting of this vital fluid may also come as the results of some constitutional disease, especially where mineral medicines are used for a protracted time, while persons who are born with any hereditary blood taint are

they do not reach the blood. Such treatment may reduce the inflammation, lessen the pain and discharge, and tend to keep the place clean, but can do no real good toward effecting a permanent cure. The sore cannot possibly heal until the impurities have been removed from the

Since an impure condition of the blood is responsible for old sores, a medicine that can purify the blood is the only hope of a successful cure; and it should be a medicine that not only cleanses the circulation, but one that at the same time restores the blood to its normal, rich, nutritive condition. S. S. S. is just such a remedy. It is made entirely of healing, cleansing, blood-nourishing, roots, herbs and barks. S.S.S.

has long been recognized as the greatest of all blood purifiers, possessing the properties that are most necessary in all impure or mobid conditions of the circulation. When S. S. S. has purified the blood, old sores heal readily

Let the consumer feel at ease regarding and surely because they are no longer fed and kept open by a continual the sanitary conditions under which the work in the large packing-houses is car-ried on. Let him make a trip of inspec-tion through any of the packing-houses that put out meat under Government in-spection, and I am sure he will come out discharge into them of disease-laden, irritating matter from the circulation. S. S. S. brings about a healthy condition of the flesh where the sore is located, and makes a lasting cure because it restores the healing properties of the blood. Book on Sores and Ulcers and any medical a wiser if not a better man. Everywhere the utmost cleanliness prevalls. On every turn of the road almost, there stands a advice free to all who write.

THE SWIFT SPECIFIC CO., ATLANTA. GA.



BEAUTIFUL CASTLE IN SCOTLAND IS RENTED BY WEALTHY AMERICANS. NEW YORK, Sept. 4 .- (Special.) - Tulloch Castle is one of the most beautiful of the old castles of Scotland. For some years it has been rented to wealthy Americans. This year it has been taken by Mrs. James H. Smith and it is in Tulloch Castle that the wedding of her daughter to Prince Miguel of Braganza will take

BAD SORE FROM OLD WOUND. I want to recommend S. S. S.

to any who are in need of a blood purifier, and especially as a remedy for sores and obstinate ulcers. In 1887 I had my leg badly cut on the sharp edge of a barrel, and having on a blue woolen stocking, the place was badly poisoned from the dye A great sore formed and for years no one knows what I suffered with the place. I tried, it seemed to me, everything I had ever heard of but I got no relief, and I thought I would have to go through life with an angry, discharging sore on my leg. At last I began the use of leg. At last I began the use of S.S.S., and it was but a short time until I saw that the place was improving. I continued it until it removed all the poison from my blood and made a complete and permanent cure of the sore. JNO. ELLIS. 108 Wyckoff St., Brooklyn, N.Y.

very apt to be afflicted with old sores. Local or external applications cannot cure an old sore, because circulation and its natural, healing constituents restored.