

The

(No. 6)

Santa Fe Today



The Santa Fe Today—No. 6

Explanatory note: Expansion of the Santa Fe from a small Kansas enterprise into a vast transcontinental transportation system has brought about many changes in its operations. This article is the sixth in a series to explain the workings of this modern railroad plant with its shops, yards, offices and other physical properties which go to make up the Santa Fe today. These articles have been prepared by the public relations department with the co-operation of the various department heads and the editors of The Santa Fe Magazine. The remaining articles in the series will be published and distributed from time to time until all departments of the railroad have been included.

Employees are urged to retain this pamphlet and all others in the series so that at the conclusion they may have a complete story of The Santa Fe Today.

The Santa Fe Today

The Traffic Department

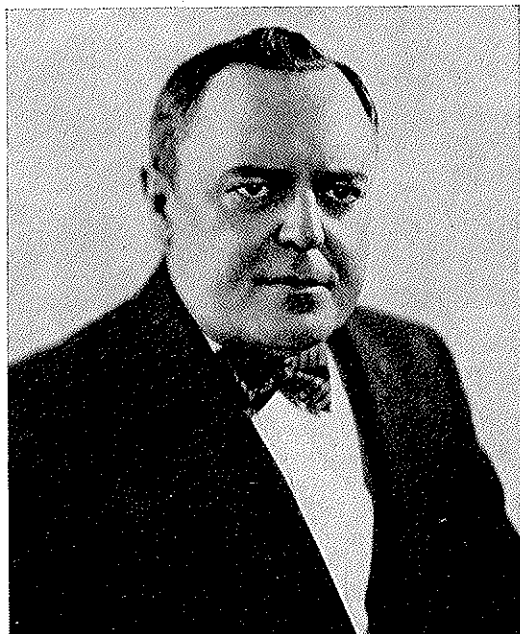
THE traffic department is the sales department of the Santa Fe Railway. Like any other business the Santa Fe has something to sell, but unlike most business concerns we do not have goods to sell, our product is a service—transportation of persons and property.

Today more than ever before the railroad industry is faced with keen competition in the selling of transportation to the shipping and travelling public. Other railroads, trucks, buses, the airplane, the steamship, the barge, the private auto, all compete for our customers. The primary function of the traffic department is to secure for the Santa Fe the largest volume of traffic possible. Without active and effective solicitation the volume of traffic handled by the Santa Fe would soon shrink. Without proper rates to move the traffic, the efforts of our solicitation force would be greatly handicapped. All of us are proud of the superior service the Santa Fe has to offer, but unless we continually solicit our patrons and prospective patrons we cannot hope to get and retain our share of the available traffic.

The traffic department as the sales department of the Santa Fe Railway is the connecting link between our customers and all the other departments of our company. As such, much of its success is dependent on the good will and whole-hearted co-operation of the other departments. What the solicitor has to sell is the service of transportation and that service is the result of the combined efforts of all other departments.

Briefly, the organization of the traffic department is as follows: At the head of the traffic department is Vice-President James J. Grogan. He is responsible to the management for the policies and the general functioning of the department. As head of the department he has general supervision over all of the traffic offices.

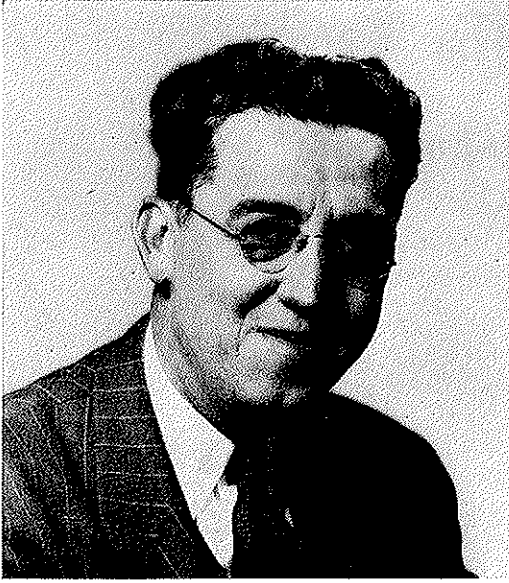
Directly under the vice-president, the traffic department is composed of the freight traffic department, which in turn embraces the Santa Fe refrigerator depart-



James J. Grogan, vice-president in charge of traffic, Santa Fe System Lines, with headquarters in Chicago.

ment, the live stock department, the agricultural department, the industrial department, and the foreign freight department; and the passenger traffic department, which embraces the express and mail department, and the advertising department.

Assisted by G. E. Duffy, assistant vice-president, and J. E. Doud, assistant to the vice-president, Vice-President Grogan has system-wide supervision of the solicitation of business, the formulation, publication and interpretation of all tariffs containing rates, rules and regulations as they affect the ultimate cost of transportation to the patron, the division of rates between our line and the other carriers parties to the routes, industrial matters, all procedures in which traffic matters are involved before the Interstate Commerce Commission and state regulatory bodies, Santa Fe participation in the functions of



Gerald E. Duffy (left), assistant vice-president, traffic, and J. E. Doud, assistant to vice-president, whose headquarters are in Chicago.

railway traffic associations, rate bureaus and inspection bureaus. He makes recommendations as to the purchase of new Santa Fe cars, both as to kind and quantity. Through the medium of regular weekly reports and other special reports prepared by the various freight traffic department offices he keeps the management informed of industrial and agricultural conditions in the Santa Fe territory and of all important changes in the flow of traffic over the system.

Freight Traffic Dept.*

AT CHICAGO, directly under the vice-president and responsible to him is the general freight traffic manager, F. H. Rockwell. He has general supervision over the freight traffic department. Traffic department general offices are also located at Topeka, San Francisco, Los Angeles, Galveston, Amarillo, Albuquerque and Phoenix. Freight traffic managers, traffic managers and general freight agents, reporting to the general freight traffic manager, conduct the affairs of these offices within the areas assigned to each.

The work of the freight traffic department is subdivided into solicitation and rates. Under rates the work is further subdivided as to the making of rates, the publication of rates and the division of through

rates between the Santa Fe and the other carriers involved. Within the framework of the freight traffic department are the industrial department and the foreign freight department. The work of these subdivisions is so closely related that in many cases there is no clear cut distinction. Thus many of the general officers handle both rate and solicitation work and also have charge of industrial and foreign freight department work in their territories. To facilitate the explanation of the work of the freight traffic department, solicitation and rates will be treated as separate departments, and the industrial and foreign freight departments will be considered separately.

Solicitation Department

FOR convenience in solicitation matters and to expedite handling, the United States, including Canada and Mexico, is divided into territories, sometimes referred to as grand divisions, although they do not correspond exactly to the grand divisions of the operating department. Each territory is under the direct supervision of a responsible traffic officer.

Northern California, the Northwestern States and the Western part of Canada are under E. B. Johnson, freight traffic manager, San Francisco, Cal. Southern California is under R. S. Hirsch, freight traffic manager, Los Angeles, Cal. Arizona is under T. H. Murray, general freight agent,

*The Passenger Traffic Department will be dealt with in the next issue of "The Santa Fe Today."

RANKING OFFICIALS of the FREIGHT TRAFFIC DEPARTMENT



F. H. Rockwell, G.F.T.M.
Chicago, Ill.



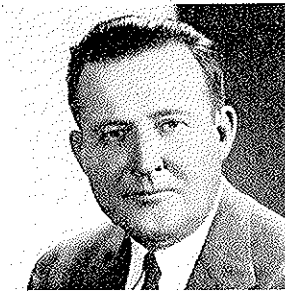
W. E. Hines, Asst. to GFTM
Chicago, Ill.



R. M. Hiltshew, F.T.M.
Chicago, Ill.



T. M. Caiazza, F.T.M.
Chicago, Ill.



W. H. Turner, F.T.M.
Topeka, Kan.



E. B. Johnson, F.T.M.
San Francisco, Cal.



R. S. Hirsch, F.T.M.
Los Angeles, Cal.



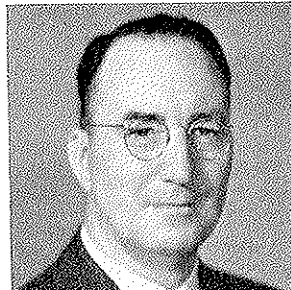
Clark Davis, F.T.M.
Galveston, Tex.



H. C. Vincent, T.M.
Amarillo, Tex.



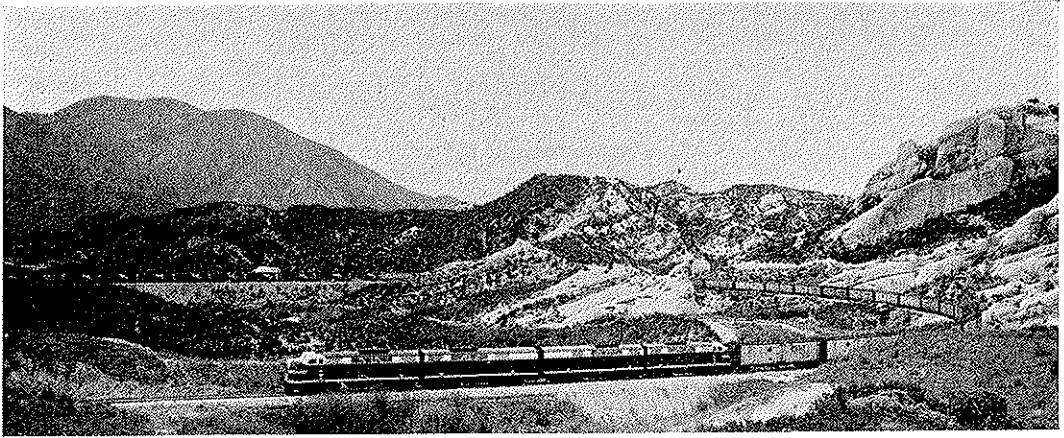
R. G. Nicholson, G.F.A.
Chicago, Ill.



T. H. Murray, G.F.&P.A.
Phoenix, Ariz.



G. C. Lyman, G.F.&P.A.
Albuquerque, N. M.



Santa Fe Diesel-electric freight train negotiating steep grades in Cajon pass.

Phoenix, Ariz., and New Mexico (except the Pecos Branch), also El Paso, Tex., is under G. C. Lyman, general freight agent, Albuquerque, N. M. The territory served by the P.&S.F., including the Pecos Branch in New Mexico, is under H. C. Vincent, traffic manager, Amarillo, Tex. The territory served by the G.C.&S.F. is under Clark Davis, freight traffic manager, Galveston, Tex. The territory served by the A.T.&S.F. east of the Rocky Mountains, and generally on and west of the Missouri River and the entire state of Nebraska, most of Colorado, part of South Dakota and Wyoming, is under W. H. Turner, freight traffic manager, Topeka, Kan. The on-line territory in Illinois, Iowa and Missouri east of Kansas City and Saint Joseph is in charge of R. G. Nicholson, general freight agent, Chicago. The balance of the United States, and Canada, and most of Mexico is under R. M. Hitshew, freight traffic manager, Chicago, Ill.

Located at strategic and important cities throughout the United States and Mexico are 66 traffic offices handling solicitation, each with its assigned territory within the above described territories. Some of these offices are exclusively freight traffic department offices and some are operated jointly with the passenger traffic department. At Chicago we have a separate office that solicits perishable traffic exclusively. In charge of these traffic offices located at points "on-line" are general freight agents, assistant general freight agents or division freight agents. Offices located at "off-line" points are in charge of traffic managers, assistant traffic managers or general agents.

Each of these soliciting traffic offices has its complement of clerks, such as chief clerk,

rate clerk, diversion clerk, tracing clerk and other general clerks, which, depending on the size of the office and the territory covered, may be one or more. Working from these offices the traveling and city freight agents make their daily calls. Each has his own assigned district or territory.

Opinion may differ as to whether good solicitors are born or made. But basically, a good solicitor must have natural aptitude and acquired knowledge along the following lines: a sustained but temperate enthusiasm about his work and the Santa Fe railway; a sincerity of purpose—evidenced by a straightforward attitude toward his work and belief that the service he has to sell is of sound value to the buyer of transportation, and is of mutual interest and profit to the buyer and seller; an attitude of friendly cordiality, in both voice and action, blended with an attitude of dignity and reserve that reflects good manners and cordiality without being stiff or aloof or unduly effusive or ingratiating; a willingness to work steadily, not spasmodically; good taste in clothing and an acceptance of the conventions of the times, and of the standards of personal appearance; a consideration for opinions and prejudices of his customers; a tactful appreciation of his customers' time so as to not wear out his welcome; a friendly and inquisitive interest in his customer as a human being; an adequate general education either formal or self-acquired so that he may be intelligent in his conversation with his customer pertaining to things other than the railroad business and more specifically the interests or hobbies of his customers; and a general knowledge of how the railroad business fits in with business in general.

A good solicitor should have a knowledge of traffic geography, including producing and consuming territories, major distribution centers, transportation carrier routes, and how the Santa Fe fits into those territories and routes; a general knowledge of freight rate making and the publication and posting of tariffs, special, transit and terminal freight services, charges and allowances. He should have a working knowledge of the liability of carriers and the procedure in the preparation, presentation and investigation of claims. And he must have a general knowledge of his competitors. These are some of the basic necessities of a good solicitor. The more he knows about the railroad business, the better he can do his work, because he can serve his customers better. The good solicitor often is considered by his customers as an assistant.

As the point of contact between our company and the shipper, the solicitor not only asks for business, but keeps his customers informed about new rates, changes in existing rates, all phases of service, such as schedules, routing, junction points that will afford better service, and other timely information that will help his customer. Each shipper has a vital stake in the freight rates applicable to his commodities, anything affecting these rates or tending to affect them, will have a bearing on the conduct of his business. Likewise, service is an important factor to the shipper, goods in transit represent invested capital and earn no profit while in a freight car. The shipper primarily is interested in getting his goods to destination the quickest and most economical way. The solicitor's job is to show him how to do this and thereby get the business for the Santa Fe.

Many a good solicitor has discovered a patron who has either from some fancied

wrong or perhaps because of some thoughtless error or conduct of a fellow employe, lost his liking for the Santa Fe. It is not easy to get him back in the fold, but by repeated calls and a tactful and well thought out campaign it can be done.

Backing up the solicitor are the entire facilities of the freight traffic department and the facilities of all the other departments. Because the Santa Fe has traffic offices across the nation, many tips are received concerning prospective business. These, when urgent, are transmitted by telegraph to the soliciting office covering the point where the traffic is controlled. All on-line and most of the off-line offices are now connected by telegraph or teletype and the fine co-operation of the communications department is an important aid to the solicitors.

The close co-operation of the officers and employes concerned with rates is of paramount importance to the solicitor. In many cases the functions of the rate department, inclusive of the quotation of rates, the interpretation of tariffs, and the making of new or different rates, to take care of new traffic or retain current traffic because of changed competitive situations, are the result of, or are closely related to, the contact of the solicitor with our patrons. It is also the function of our general office to see that our soliciting force is supplied with current and up-to-the-minute information about changes in rates and schedules, traffic conditions, government regulations and any other matters affecting Santa Fe patrons. A volume of details is embraced by these procedures.

From time to time the Santa Fe has conducted educational tours to teach our solicitors the important features of the territory we serve and so that they can have



Moving solid wheat trains to the Gulf for export is a regular Santa Fe activity.

first-hand knowledge of our facilities to serve the public. In addition, all of the grand divisions hold staff meetings several times yearly at which the problems of solicitation are discussed, ideas and methods for securing new business and holding regular patrons are interchanged, new Santa Fe features are explained, and ideas and suggestions for improvement of Santa Fe service are solicited.

Another important tool that effectively aids the solicitor in getting new business and retaining old, is the car service bureau at Topeka, commonly known as the "red ball department." Over a period of years, the Santa Fe has developed an excellent system for keeping records of our patrons' cars while on our rails. Very complete information of the movement of cars on the system rails is promptly telegraphed to each soliciting office according to its needs. Our soliciting offices by telephone, telegraph and postcard keep our patrons currently informed as to the movement of their traffic. Our present system is second to none and is a potent factor in the soliciting of traffic.

The solicitor relies on the co-operation of the operating department for the prompt handling of diversions, all phases of car service, for information regarding clearances and routing of high and wide loads, and many other similar services. The co-operation of the operating department is vital to the solicitor, for it is the operating department that is directly responsible for the service the solicitor has to sell.

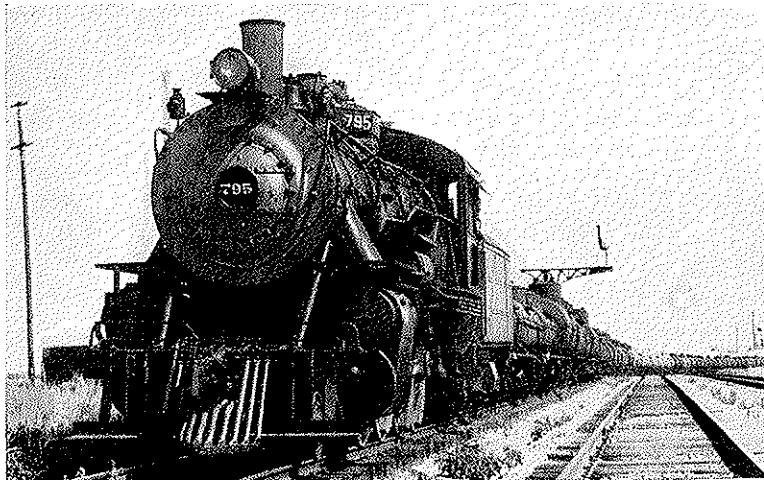
Many times our fellow employes in other departments wonder why the traffic department asks some particular question; sometimes to the person who is asked the question it seems pointless. Such questions are

put to the other departments only because a patron has asked the question. To the patron not familiar with railroad operation, the question is a serious one. The prompt and thoughtful answer many times will greatly aid the solicitor in making the patron a good friend of the Santa Fe.

Every employe of the Santa Fe is a solicitor whether he realizes it or not. The Santa Fe has an excellent reputation because of the friendly, courteous service of our fellow employes in every department. This extends beyond our working hours and into our daily lives wherever and whenever we meet people, on the street, in church, at a social gathering or any other place. Santa Fe employes everywhere, who take a constructive interest in the welfare of their community, are consciously or unconsciously building good will for the Santa Fe and thus making their jobs more secure. The local agent working with the traveling freight agent in his territory has a splendid opportunity to effectively solicit a tremendous amount of business.

A resume of the traffic handled by the Santa Fe embodies an introspection of our national commerce. Live stock was the first commodity in volume (and buffalo hides) to be transported by the Santa Fe. As the Santa Fe's line was extended across Kansas, it became the terminus for the various cattle trails leading from Texas and the Southwest. Live stock today is an important source of Santa Fe revenue, necessitating a separate department within the Santa Fe's traffic organization.

As farming in western Kansas, Indian territory, and the Texas Panhandle broadened and improved, the growing of wheat and its yearly movement became of na-



Santa Fe train of loaded tank cars leaving a station in Oklahoma.

tional importance. Corn, oats, barley and various grains, meals, flour, cereal food and other mill products aggregate sizable tonnages. Miles of bright yellow Santa Fe refrigerator cars are utilized throughout the year in the transportation of the Western fruits and vegetables. The Santa Fe's land agents (1885-1888) founded and developed many communities throughout southern California all devoted to the production of citrus fruits. The Santa Fe introduced oranges to much of the East (during the 1880s), setting up in Chicago a display of citrus products which attracted national attention. Thousands of cars of potatoes, winter vegetables, cantaloupes, grapes, carrots, lettuce, dried fruits and vegetables roll out of the west and southwest.

The cash farm income from the twelve states served by the Santa Fe will average close to half of the nation's total. Among those states, Texas produces nearly one-third of the nation's cotton; Kansas, almost one-third of the wheat; California, all the lemons, ninety per cent of the grapes and approximately one-half of the oranges. California, Texas and Louisiana produce eighty per cent of the rice. Six Santa Fe states, Colorado, Kansas, New Mexico, Oklahoma, Texas and Illinois, produce practically all of the broom corn. In those states and

Nebraska, Arizona, California and Missouri, almost all of the grain sorghum in the United States is grown. The Carlsbad area of New Mexico, exclusively served by the Santa Fe, is the world's largest producer of potash. South Texas produces nearly three-fourths of the world's sulphur. The great bulk of the nation's carbon black is produced in Texas.

Other thousands of tons of coal, gravel, sand, stone, salt, various ores and concentrates, and other mineral products mined within Santa Fe territory move to industries located throughout the nation. Out of forests come additional thousands of tons of lumber, shingles, lath, logs, posts, pulpwood, box and crate materials, rosin, turpentine and other products. Hundreds of thousands of tons of petroleum oils, gasolines, road, fuel and residual oils, lubricating oils and greases and other petroleum products originate on Santa Fe Lines.

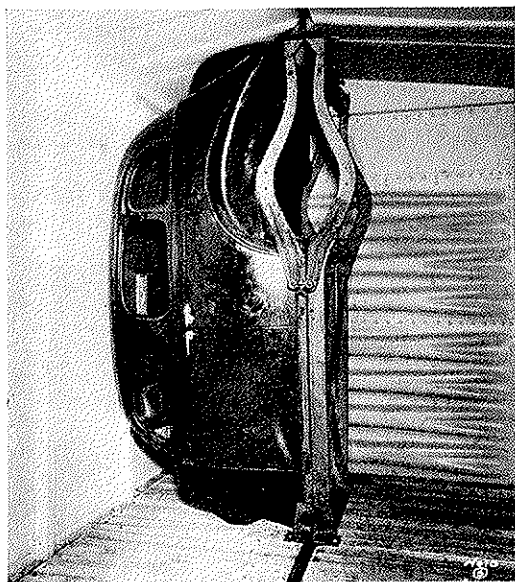
Manufactures and miscellaneous products represent a little more than one-third of the Santa Fe's revenue tonnage. Iron and steel, pipe, fittings, nails, wire and other metals, fertilizers, automobiles and parts, cement, sugar, machinery, canned foods, scrap iron and steel, paper and paper products, glass and glassware, furniture, soap, food, clothing, ice, plaster, agricultural implements—all move in quantity with countless other manufactured products over Santa Fe rails.

The Santa Fe transports a considerable tonnage of less-than-carload or merchandise freight. That service is high-lighted by fast runs between important Santa Fe points and junctions.

Free pick-up and delivery service (door to door) enables the Santa Fe to render service comparable with competitive transportation agencies.

The Rate Department

ANOTHER principal function of the freight traffic department is the making of rates. The construction of any rate is two-fold in purpose. The rate must be set at a level that will move the greatest volume of traffic and at the same time it must return a profit to the railway for handling that volume of traffic. The work of this part of the traffic department is divided into five phases: 1. The handling of rate matters before the Interstate Commerce Commission and state regulatory bodies. 2. The interpretation of tariffs and quotation of existing rates. 3. The making



Automobile body loading car. Inside view showing body and empty chassis frame fastened together and shoved back into end position. A second body is to be fastened to the empty chassis frame shown in this photograph.



A typical freight warehouse and loading platform where foremen, truckers, stevedores, checkers, and other employes load and unload the less than carload freight. This picture shows a portion of the Santa Fe facilities at Kansas City.

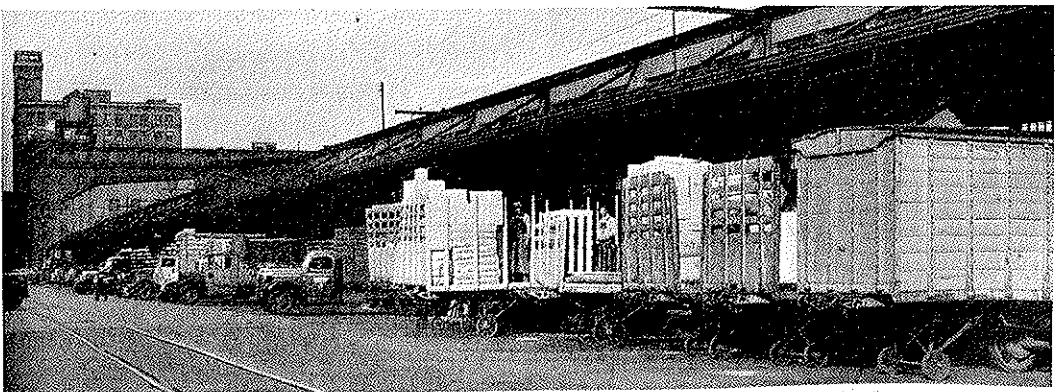
of rates including the almost continuous process of revision that occurs because of the constantly changing business life of the nation. 4. The publication of rates. 5. The establishment of divisional bases for apportionment of all joint through rates to which the Santa Fe System is a party.

For convenience and because of the geographical limits of the various rate bureaus to which the Santa Fe belongs, the work of the rate department is subdivided into territories approximately the same as the solicitation territories. The same general officers handling solicitation on-line usually have supervision of rate matters within their respective territories, under the supervision of the general office at Chicago.

The rate departments of the various general offices in conjunction with the law department handle all matters pertaining to the traffic regulatory authority of the Interstate Commerce Commission and the various state commissions. The Interstate Commerce Commission has authority under the

law to determine maximum or minimum rates which may be charged by a railway and may suspend rates proposed by the railways pending a hearing as to the lawfulness and reasonableness of those rates.

Every person has the right to appeal to the Commission for redress if he considers any rate or charge unjust or discriminatory, or the Commission may on its own motion institute proceedings as to the lawfulness or reasonableness of any rate or charge. These are known generally as formal cases and are assigned docket numbers consecutively. The Commission also has an informal proceeding by which a mere letter of complaint to the Commission is sufficient. In these cases the complaint is forwarded to the railroads involved and if they agree that the complaint is justified, they may voluntarily, with the sanction of the Commission, make the necessary adjustment. Also under certain circumstances the carriers may through the medium of a special docket application request Commission au-



Auto-trucks and other vehicles backed up for unloading at a Santa Fe freight house, a daily scene throughout the system lines.



Fork lift trucks and pallets are used in platform operations in freight houses.



"Chore boys" also serve to facilitate the handling of L. C. L. freight shipments.

thority to waive collection of under charges or to make reparations on shipments on which the tariff rate assessed was unreasonable.

Although it is presumed that under the law shippers have knowledge of the rates as published, it is part of the rate department work to quote freight rates. At the request of shippers rate statements are prepared covering their particular commodities. In addition to the general offices every traffic office has one or more men whose duties include quoting rates. Also, the on-line soliciting offices daily receive and handle many requests for rates from the local agents in their territory. The larger offices have one or more men who devote their full time to this work.

While it is true that many of the rates in existence today are the result of Interstate Commerce Commission orders, nevertheless, it is the duty of the railroads to make rates.

The construction of a new rate or the change in an existing rate is influenced by many factors. These concern the nature of the commodity, its value, its density (weight per cubic foot), its susceptibility to damage and liability to damage other freight, the distance transported, the terrain and country through which transported, whether level plains or over steep mountain grades, the amount and nature of terminal services necessary, value of service to the shipper, competitive conditions, quantity or volume of the traffic, frequency of movement, railway earnings and, in the case of joint rates with other carriers, how the divisions of such rate will affect our earnings, the relation to and comparison with existing rates on identical or similar commodities moving in the same territory or similar territories,

any special service required, type of equipment to be used, i.e., boxcar, flatcar, privately owned tank car, etc., whether the equipment will have to be returned empty to point of loading, and any unusual conditions or circumstances.

Railway freight rates may be local rates applying over one railway, joint rates over two or more railways, proportional rates which are proportions of through rates, and contemplate either prior or subsequent movement beyond the points from or to which the proportional rate applies; and export or import rates which apply only on traffic having destination or origin in foreign countries.

There are further distinctions within the railway rate structure: carload and less-than-carload rates, all-freight rates, any quantity rates, arbitrary rates, which are factors usually added to rates published to or from a basing point to make through rates to or from branch or short-line points, combination rates composed of two or more separately established rates added together, intrastate rates which apply only within the borders of one state and interstate rates which apply via routes traversing more than one state, through rates which may be a one factor rate or a combination of two or more rates, distance or mileage rates, based on the distance between origin and destination, per car rates, i.e., rates published in dollars and cents per car as distinguished from rates published in amounts per 100 pounds, or per ton or some other measurement, minimum and maximum rates.

Other designations applicable to railway freight rates include: blanket rates, basing rates, alternative rates, group rates, intermediate rates, standard rates, differential rates, special rates, flat rates, reshipping

rates, graded rates, lake-and-rail rates, barge-rail rates, rail-barge-rail, experimental rates.

The Santa Fe belongs to the following rate bureaus: Pacific Freight Tariff Bureau, North Pacific Freight Tariff Bureau, Transcontinental Freight Bureau, Colorado-Utah Freight Bureau, Texas-Louisiana Freight Bureau, Southwestern Freight Bureau, Western Trunk Line Committee, Colorado Lines Committee (a division of the Western Trunk Line Committee, publishing tariffs under the name Western States Tariff Bureau), Southern Ports Foreign Freight Committee, and Illinois Freight Association. The names of these bureaus describe in general the territory covered by each of them.

Our primary interest in the Pacific Freight Tariff Bureau concerns the rates within California and between California, Arizona and New Mexico. And the rates between California and the North Coast are handled by the North Pacific Coast Tariff Bureau. Our San Francisco general office handles our representation in these bureaus as well as the Transcontinental Freight Bureau which has jurisdiction over rates between the Pacific Coast and the balance of the United States and Canada. The Colorado-Utah Freight Bureau, and the Colorado Lines Committee, covering primarily Colorado traffic, are handled by the Topeka office. The territory of the Southwestern Freight Bureau, Texas, Oklahoma, Arkansas, Louisiana and part of Missouri,

is under the jurisdiction jointly of the Galveston, Topeka and Amarillo general offices, depending upon the scope of the traffic, as to which office actively handles the subject.

The Texas-Louisiana Freight Bureau having jurisdiction over those two states is handled by the Galveston and Amarillo offices. Western Trunk Line is handled jointly by Topeka and Chicago general offices and roughly covers the territory west of the Mississippi River to Denver, Colo., and north of the Kansas-Oklahoma State Line to the Canadian border. Illinois Freight Association, limited to the State of Illinois and some border areas in adjacent states is handled by Chicago. The Southern Ports Foreign Freight Committee has jurisdiction over the export and import rates to and from the ports on the Gulf of Mexico, Florida and South Atlantic and is handled by the foreign freight department.

Most requests for new rates or changes in existing rates come from shippers or traffic department representatives who believe that an adjustment is necessary to assure rail movement of the traffic involved. General traffic officers handling rates have studies made of the proposed rate or change to ascertain if the proposed rate will return a profit and what, if any, effect it will have on carriers' revenues accruing from rates on similar or related commodities moving between other points.

Proposals for rate changes are submitted



Chicago Produce Terminal, through which the greater part of the fruits and vegetables for Chicago—and reconsignment to other destinations—is handled.

to the rate bureau having jurisdiction for consideration by all of the members of such bureau. Rate changes to, from or within territory which is not under bureau jurisdiction, after approval by the traffic officers are sent to tariff publishing agents for publication.

The procedure in the various bureaus, while differing in detail, is essentially the same. The proposal or docket is reproduced and copies are sent to all member lines. They in turn, usually through their soliciting offices, send copies to all shippers they think might be interested, soliciting the shippers' views. The bureaus also issue public docket information outlining briefly the proposed changes and these are published in the "Daily Traffic World" and in the weekly "Traffic Bulletin," papers that have national circulation among shippers and receivers of freight.

Generally speaking, the standing rate committees of the separate bureaus make a report to the members containing their recommendations and reasons therefore, and after a time limit if there are no objections on the part of the members the standing rate committee report stands approved. A rate advice is issued announcing the approved change and usually the effective date of publication. The member lines may object to proposals or rate committee reports, in which case the subject is usually listed for consideration at the periodic meetings of the officers of the member lines. At these meetings the member lines dispose of each subject on its merits. Frequently before the meeting is convened, a public hearing is held and all interested are invited to attend and express their views. The right

of independent action is reserved by all members of every bureau.

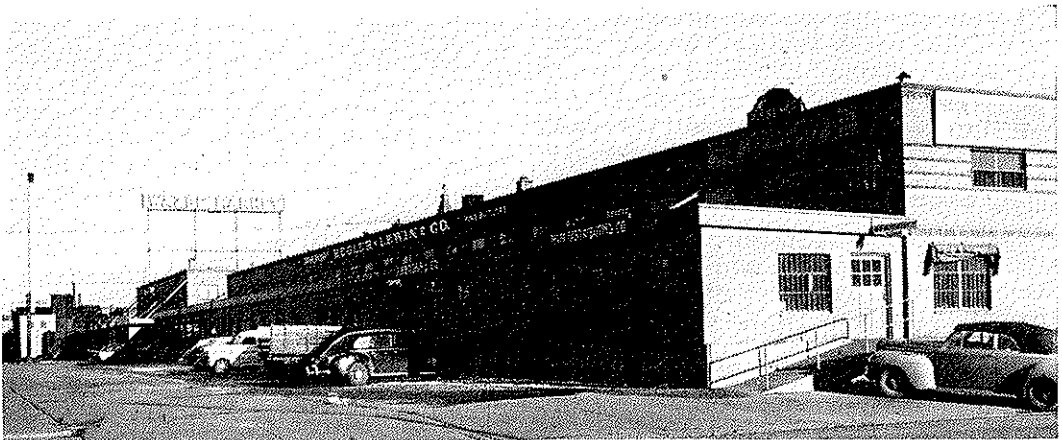
The discussion of rate matters through the bureau insures uniformity of handling and gives competing shippers an opportunity to express their views. Experience has shown that this method of handling proposed new rates and changes in existing rates results in a fairer and more equitable rate adjustment and is generally favored by shippers as well as carriers. Assuming the rate finally is approved, it is then the job of the tariff publishing agent to arrange for publication.

Tariff publishing agencies are operated by all of the rate bureaus. They publish tariffs for the account of the member lines under powers of attorney. The member lines save considerable expense through the medium of these jointly published agency tariffs, but it is still necessary for each line to publish some tariffs covering rates and charges for its own account or jointly covering particular and special kinds of traffic and service that can not conveniently be published by a tariff publishing agency.

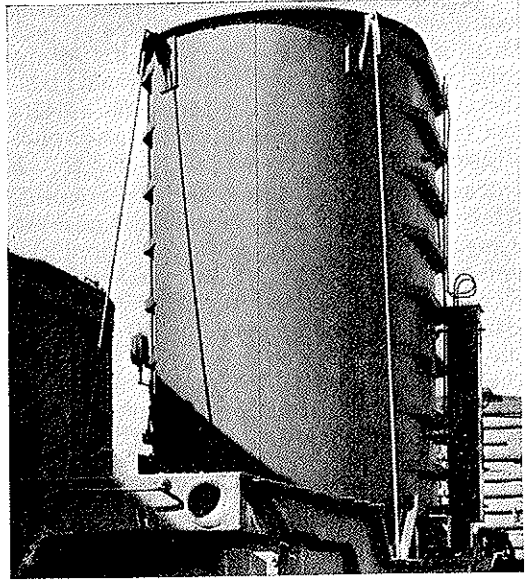
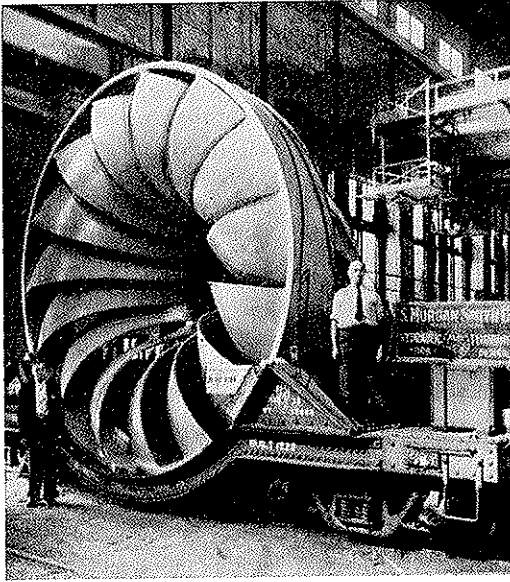
The work of our own tariff bureau is of interest to all of us.

Tariff Publication

The Santa Fe's tariff bureau at Chicago under the supervision of J. J. Comiskey, chief of tariff bureau, publishes freight tariffs, adoption notices, routing circulars, mileage tables, industry lists, transit, and other circulars, also traffic department rules and regulations, issues concurrences and



One unit of the Denver Wazee Market, now a successful merchandise mart.



Unusual freight shipments—This cast steel turbine runner, left, weighing 117,000 pounds, is one of many unusual shipments made by rail and delivered by the Santa Fe. Its overall dimensions are 16 feet 1½ inches in diameter by 9 feet 8 inches maximum width. The shippers used a special well car in order to pass all railroad clearances. The 77-Ton transformer pictured at right, was 17 feet four inches high. Santa Fe freight experts carefully checked it for bridge and tunnel clearance and when approved it went on its way to destination. Its size can be determined when compared to the regular refrigerator car, shown on the left.

power of attorney to other railroads and publishing agents, renders bills against other lines for Santa Fe tariffs and supplements furnished them, and verifies and issues vouchers in payment of bills for tariffs received from other railroads and tariff publishing agents.

All tariffs are published in conformity with the rules, regulations and requirements of Interstate Commerce Commission Tariff Circular No. 20, and similar tariff rules, regulations and requirements of the various state commissions.

The law and the commissions' regulations require that tariffs shall not be made effective prior to thirty days after filing with the Commission and posting at origin stations. The Commission is permitted by law, under special circumstances, to waive the statutory period (30 days) and posting rules.

Tariffs are initially constructed, and subsequently amended by means of supplements issued to the tariffs, from material received from the following sources:

1. Orders of the Interstate Commerce Commission or other regulatory bodies.
2. Letters of instructions from various Santa Fe general traffic officers.

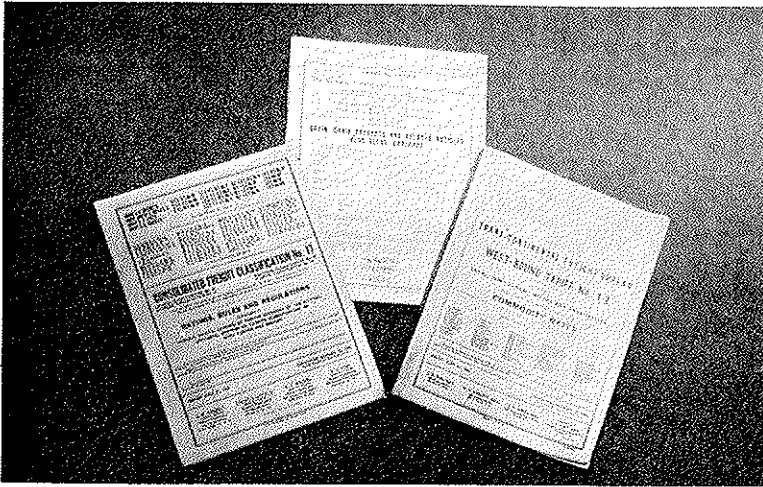
3. Rate notices and publication advices sent out by the rate bureaus or associations, operating in territory served by the Santa Fe.

Santa Fe tariffs are mailed to 1,038 local Santa Fe agents, to almost all railroads, to approximately 7,000 shippers, to Santa Fe division freight and general agents, system auditors, revising bureaus, operating department, U. S. government agencies, War, Navy and other governmental departments, state authorities, etc.

All mailing is centralized in the Chicago mailing department and requests for tariffs are filled from stock of tariffs maintained there.

The ICC rules require maintenance, publication and filing of a record of all tariffs on file at each agency station on the Santa Fe System applicable from that station. To assure complete tariff files at agency stations and comply with posting laws, division freight agents or their representatives check the tariff files of local agents in their territory at least once each year.

Santa Fe tariffs are filed with the Interstate Commerce Commission and other regulatory bodies; also at general traffic offices and at local depots throughout the Santa Fe System lines. At each Santa Fe location



Representative of the numerous publications in daily use by the freight traffic department are the Consolidated Freight Classifications, individual Santa Fe tariffs, and Trans-Continental Freight Bureau Tariffs.

the following information is carried on a blue-enameled, white lettered sign:

PUBLIC NOTICE—Complete public files of this company's tariffs are located at:

Chicago, Illinois
 Railway Exchange Building
 80 East Jackson Boulevard

San Francisco, California
 Freight Rate Schedules—114 Sansome St.
 Passenger Fare Schedules—235 Geary St.

Indices of this company's tariffs are on file in this office also rate or fare schedules applying from or at this station, except as authorized by posting orders of the Interstate Commerce Commission, and may be inspected by any person upon request without the assignment of any reason for such desire.

The agent or other employe on duty in the office will lend any assistance desired in securing information from or interpreting such schedules.

If the posting of any of the tariffs which are not posted at this station under authority of posting orders of the Interstate Commerce Commission, is desired, shippers may make written request to the agent at this station, mailing a copy thereof to the Interstate Commerce Commission. Within 10 days of the receipt of request for the posting of any such tariffs, said tariff will be posted and thereafter kept on file.

Divisions

A NOTHER important duty of the freight traffic department is to arrange divisions. In the early days of railroads, through rates were unknown and the necessity of arranging divisions did not

confront the carriers at that time. The rates were built up on those of each line, and the revenue was distributed in the same manner as the rates were constructed. Each line received as its share the amount it contributed to the total. As time went on, joint through rates were established which were made applicable over two or more carriers. The revenue derived from such rates had to be divided between the carriers involved in the movement, and it was considered proper, since the traffic department had jurisdiction over the rates, that it should also have jurisdiction over the divisions.

Centered at the Chicago general office is the division department under the direction of W. J. Dundon, general freight agent. System general offices handle divisional matters pertaining to their respective territories. The widespread publication of joint rates and routes applying intraterritorially and interterritorially has necessitated divisional agreements of a widespread character. It is essential that a railroad, such as ours, give careful consideration to divisions. We interchange freight with various railroads at numerous junction points in states which we serve. Serving such an extended territory as we do and transporting as diversified a movement of traffic as any railroad in the country, the divisional question must be considered from many angles and viewpoints.

The revenue on the majority of the traffic handled jointly by two or more railroads is divided on percentages. They have been built up from year to year, and, for the most part, are sufficiently flexible to divide any and all rates in effect, not only at the

time of their establishment, but also subsequently revised rates.

Some of the principles on which percentages were and are now being established are:

(A) MILEAGE PRORATES: In the operation of this basis, the mileages of the roads involved in the haul, in relation to the total mileage, govern the percentage of the revenue each road receives. Minimum percentages are generally observed, the measure of which varies under operating conditions. Roads performing short hauls or operating under unusual conditions are usually protected by inflated mileages or minimum percents of the total revenue.

(B) REVENUE PRORATES: Divisions of revised rates are often based on arrangements applicable in connection with the former rates. If the divisions of the former rates were considered fair, it may be assumed that the former divisions of each road can be used in arriving at percentages to divide the revised rates. This theory results in each road participating in their prorata proportion of the advances or reductions in rates.

(C) FIRST CLASS RATE PRORATES: The Interstate Commerce Commission has prescribed class rates, both intraterritorially and interterritorially, which set the rate structure in practically all territories. The first-class rate was the basic one. Some of our divisional agreements are based on the use of the first-class rate of each line as factors.

(D) RATE PRORATES: Some of the present

percentages were based on using as factors the rates of each line or set of lines. In many cases it was concluded if the local rate could be considered as the proper level to determine revenue on local movements, then it followed that the use of that rate as a factor in the division of joint rates would not be improper.

Specific divisions are quite generally in effect on basic commodities, such as lumber and forest products, cotton, coal and coke, grain, ore and its products, and petroleum and its products. The rate structure on these commodities has considerable bearing on the manner in which the rates are divided.

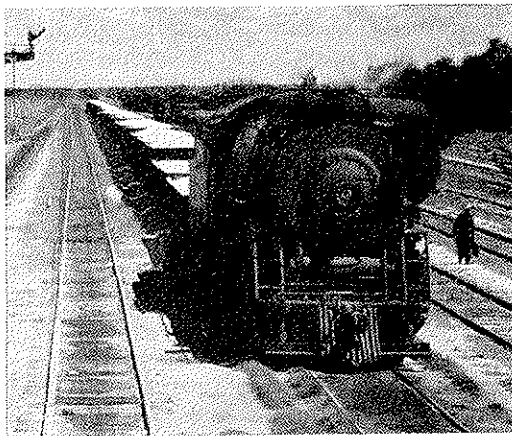
Agreements to cover divisions of rates on traffic moving interterritorially are handled through committee procedure. Member lines of the various rate bureaus furnish representatives on their respective divisions committees which meet periodically for the purpose of formulating plans and progression of subjects with similar committees of other associations. Divisions are negotiated via the interterritorial gateways between the groups of carriers in the different associations. Those gateways are generally the junctions at which the traffic is interchanged between the groups of carriers.

The joint revenues received from the handling of interterritorial traffic are subdivided between the roads in the respective territories on agreed percentages or other bases which are applicable to or from the gateways proper.

Divisions on traffic moving intraterritorially are negotiated between the individual roads, except in cases where past practices have established certain interior gateways as the divisional breaking points. In these cases groups of carriers negotiate with individual lines or groups of lines as the case may be.

The Interstate Commerce Commission has an important place in the divisions picture. The Interstate Commerce Act provides that the carriers must divide joint rates on a fair and equitable basis. It goes further and says that the Interstate Commerce Commission may investigate and prescribe divisions on its own volition, or on petition of carriers who are unable to agree. The inability of the railroads to settle their differences has resulted from time to time in the Commission prescribing divisions.

Over a period of years, the divisional structure of the majority of traffic handled by the roads has become stabilized, and the



Sulphur from Texas to the East. Here a Santa Fe train is shown pulling into Bellville, Tex., yard with 5,030 tons of Texas sulphur from New Gulf, destined for northern and western manufacturing points.

accounting departments have a fairly complete set of agreed principles on which to distribute joint revenues on traffic moving over normal routes. The job, however, has not been completed. The system traffic departments are forging ahead as rapidly as possible in an effort to fill in the gaps.

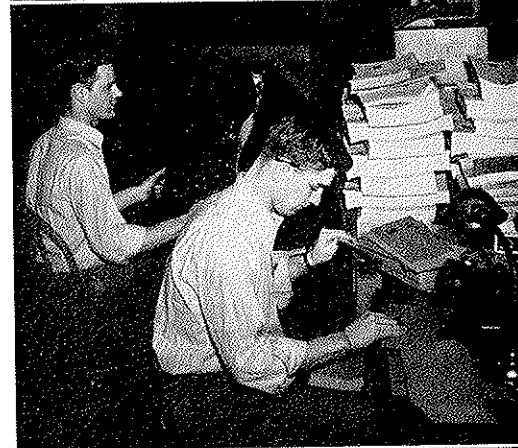
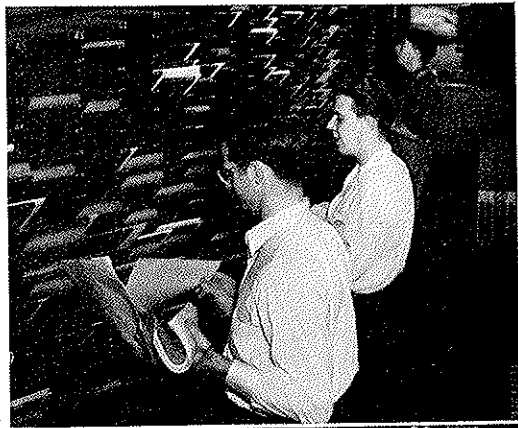
To expedite the publication of new rates pending final division determination on all traffic from and to all points in the United States for which no agreed divisions have been provided, the subcommittee of the traffic and accounting advisory committee, Association of American Railroads, has authorized and approved a so-called interim division basis. This basis is used until permanent divisions have been arranged.

In cases of disputes respecting divisions the accounting departments handle by statements of differences and claims. These are issued by the accounting departments and challenge the revenue settlements of the settling carriers on past movements. They undertake to secure a readjustment of the revenue. Unless the statements of differences and claims are based on sound principles and are supported by divisional authorities, they are declined by the settling carrier. As the accounting departments have no authority to readjust revenues, not supported by divisional authority, except at the direction of the traffic departments, the disputed matters frequently reach that department for disposition.

The traffic departments handle all such matters by correspondence, or through conferences whenever possible. Experience has convinced us that this is the best method. In conferences with other roads, we undertake to recover revenues which we consider to be rightfully due us, correct the matter for the future, and improve our relations with the other roads.

When divisions are arranged by the traffic departments, they must be sent to the accounting departments to be used in the distribution of revenues. The agreements are published in division or percentage sheets in a comprehensive and simplified manner. Publication usually is made in two or three-figure percentages. This is the most desirable method and is universally observed as much as possible.

The publishing agents for the various rate associations arrange the publication of divisions on interterritorial traffic. All such issues have joint application and are usually compiled and printed by the associations whose carriers originate the traffic or have

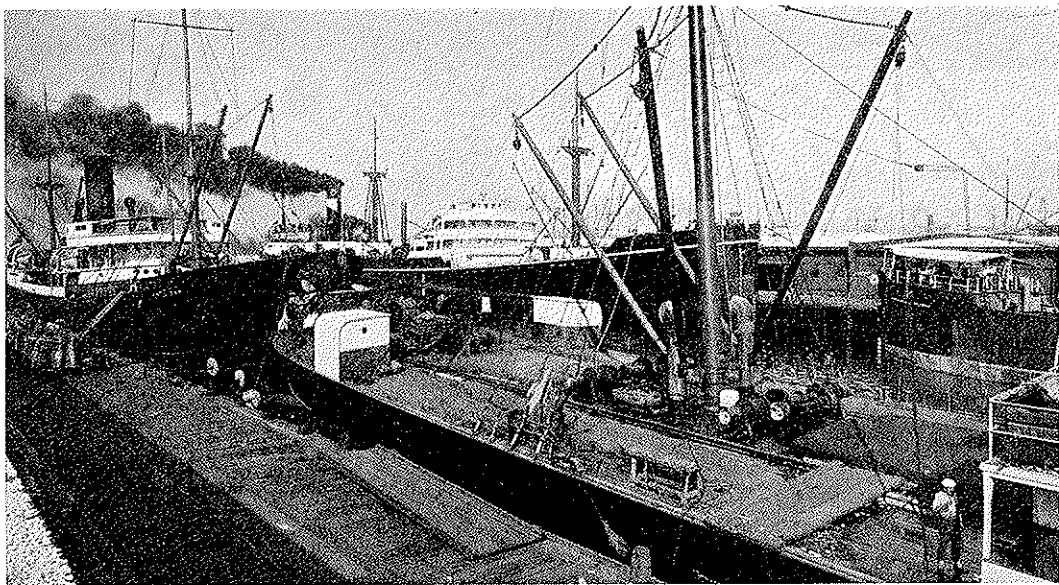


AT THE TARIFF MAILING ROOM, CHICAGO:

Top—"Pitching" tariffs which will be sent to agents and general offices.

Middle—Cutting stencil plates and addressing envelopes to be used in the distribution of tariffs.

Bottom—Assembling tariffs to be sent to agency stations whose files are incomplete.



A representative shipping scene along the wharves at the port city of Galveston, Tex. Railroad track is shown at left.

the greatest interest. The individual roads issue division or percentage sheets for joint application.

In addition to the duties previously outlined, the division department is called upon to supply information to agents, on and off-line solicitation forces, purchasing department, prepare revenue tests, and otherwise serve as an information center on all matters pertaining to the divisions of freight rates.

Industrial Department

AT EACH of the system offices there is an officer in charge of industrial matters. San Francisco, Los Angeles, Galveston and Topeka have full-time industrial agents. The traffic manager handles industrial matters at Amarillo, while at Albuquerque, Chicago and Phoenix industrial matters are handled by the general freight agents.

The industrial department operates in close conjunction with President Gurley's special representative in Washington, D. C., J. P. Reinhold. Mr. Reinhold's duties include missionary as well as follow-up work with eastern industrial executives and governmental agencies toward the development of the Santa Fe territory in the locating of new industries, the expansion of present

industries and the development of the natural resources of the territory.

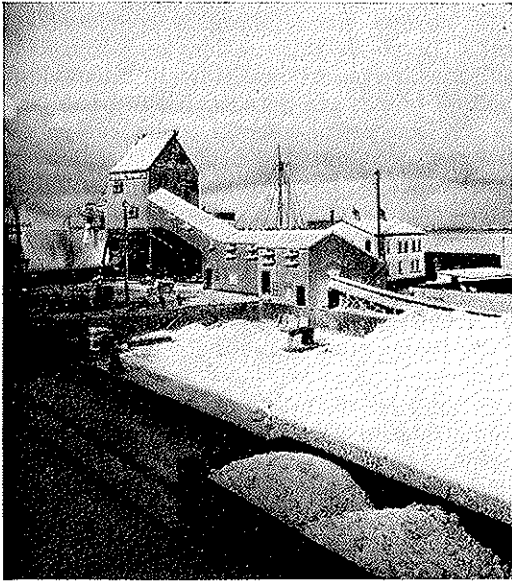
The Santa Fe Industrial Department cooperates closely with the Santa Fe Land Improvement Company particularly in connection with its activities in locating industries in the Central Manufacturing District at Los Angeles.

The industrial activity of the department embraces the entire territory served by the Santa Fe, from a nation-wide standpoint. It secures the location of new industries on Santa Fe rails, aids the development of existing industries and fosters the development to the fullest extent possible the industrial and commercial potentialities of the Santa Fe territory.

Industrialists find that Santa Fe industrial department files contain all necessary data on natural resources, minerals, fuels, water, timber, population, labor, climate, transportation, land costs, markets, utilities (facilities and rates), purchasing power, distribution and related factors.

There is no area of Santa Fe territory or that adjacent to Santa Fe rails which has not been intimately studied by the traffic department's industrial division.

Industrial work embraces studies of community factors such as utilities, taxes, churches, recreation, health, schools, municipal services, local industries, municipal finances and facilities, labor supply, community growth and development, long term



Loading sulphur into ship at the port of Galveston.

planning, business trends — almost everything that pertains to community, business and social life. Similar studies are made on a state or regional basis.

The national defense program in late 1940, and our entry in the war, brought the Santa Fe's industrial department into sharp focus as the need arose for sites favorable for training camps, air bases, reception centers, munition plants, and general industrial purposes. There followed a great deal of exploratory work and subsequent discovery of natural resources in the western and southwestern parts of the United States — all of which will give added impetus to the postwar industrial growth of those areas.

When the War Production Board froze the construction of new plants in 1943, the Santa Fe's industrial department assisted the government and others engaged in war work in the location of available vacant buildings, factories and properties which could be utilized or converted into suitable war manufacturing and storage units with a minimum of critical construction materials. Here, too, hundreds of Santa Fe brochures, reports, letters and accompanying maps, photographs, charts and other data were prepared concerning these properties.

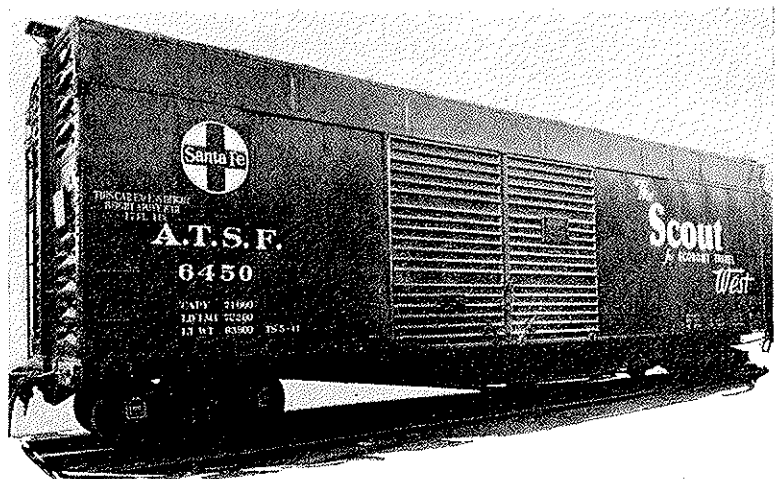
It is an industrial department responsibility to acquaint American industries with the presence and value of those resources and plant sites. The Santa Fe cooperated in placing Santa Fe communities on a wartime footing and it is assisting those communities in the return to peacetime pursuits.

Foreign Freight Dept.

THE Santa Fe has long been prominently identified with the nation's export and import commerce. Santa Fe rails directly serve the major California and Texas ports. Through its various junctions with connecting carriers, the Santa Fe participates in the cross-country movement of export and import traffic handled through various eastern ports from New Orleans to the North Atlantic ports. The Santa Fe also participates in a large volume of traffic moving all mail to and from Canada and Mexico through the border crossings.

General Foreign Freight Agent G. J.

Specially constructed car hauling airplane wings, height 17 feet one inch above the rail.



Steinmiller, at Chicago, has general supervision over all export and import traffic. Foreign freight agents are located at Los Angeles, San Francisco and New York. At other system offices the work is handled by general solicitation officers. Every traffic office actively solicits export and import freight.

The Santa Fe Lines being one system is an important asset in expediting foreign traffic between points on our line and the ports we serve as well as to or from ports or inland points served by other lines.

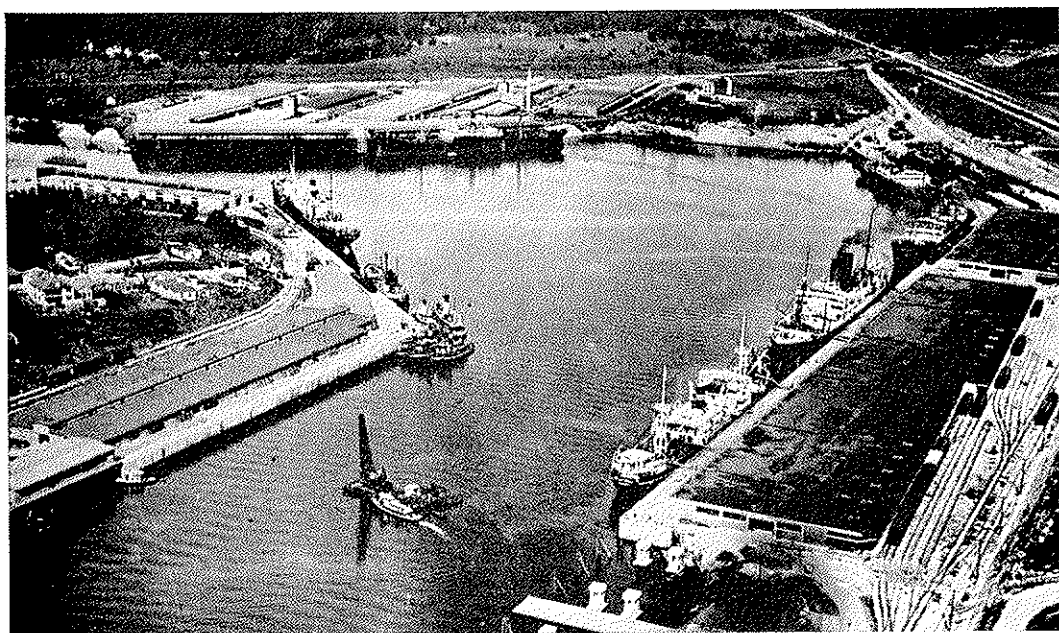
The experience gained through many years of Santa Fe participation in foreign traffic prior to World War II was of especial benefit to the government and private industries in the handling and dispatching of freight under the abnormal conditions that prevailed during the war.

International contacts are maintained by the foreign freight agents. In peace or war, the knowledge of foreign commerce and enterprise gained by the department has proven useful not only to the Santa Fe, but to its patrons. The Santa Fe foreign freight offices have co-operated in the study of American railway operations and methods made by representatives of foreign countries prior to the war, and much international goodwill was engendered thereby.

In normal times, there is considerable traffic between this nation and Europe, South America, Africa, Hawaii, Australia, the Philippines and all Asia. Coffee, rubber, tea, tapioca, copra, vegetable oils, camphor, tin, fish, coconut and other oils, bamboo, Chinese provisions, Philippine lumber, silk, chinaware, kapok, cigars, furniture, coconuts, ore, nitrate and many other articles are imported in quantity. Postwar foreign traffic, particularly export traffic, is destined to be heavy in view of the rehabilitation work to be done throughout Europe and Asia.

In addition to quoting rates, rules and regulations to patrons, the foreign freight department maintains records of the flow of export and import traffic.

Foreign freight agents issue through export bills of lading, bill, collect and remit rail and ocean charges, handle adjustments of charges, advise shippers when freight clears port; also tracing, diverting, securing ocean space, and other services. Matters pertaining to embargoes affecting foreign commerce, United States and foreign customs regulations and quarantines, and "in bond" (U.S. customs) freight for the system lines, are cleared by the foreign freight agents.



Ships of all nations pass through the ship canal of Houston, Tex., which extends from the city limits to the Gulf of Mexico.

The Refrigerator Department

THE Santa Fe's refrigerator department, a system-wide organization under the direction of A. C. Dewhirst, manager, Chicago, is an important division of the traffic department furnishing Santa Fe service to shippers and receivers of perishable freight.

The Santa Fe refrigerator department had its origin shortly after the A.T.&S.F. Railway constructed its first refrigerator cars in 1896 by the formation of the Santa Fe Fruit and Refrigerator Line in that year. E. H. Davis was named manager of the Santa Fe Fruit and Refrigerator Line, which remained in existence until 1902 when the Santa Fe Refrigerator Despatch Company was incorporated with Mr. Davis as manager. Mr. Davis was succeeded by J. S. Leeds in 1903, who remained in office until his death in 1918. G. H. Nelson was appointed manager of the refrigerator department in September, 1918, and served in that capacity until his retirement on March 31, 1948, when he was succeeded by Mr. Dewhirst.

The first refrigerator cars constructed by the A.T.&S.F. Railway were 34 feet in length and poorly insulated when judged by present-day standards. Thirty-six-foot cars came into existence about 1898 and 40-foot cars shortly after 1900. From the time the Santa Fe early refrigerator cars were constructed many improvements in refrigerator car design and in appliances in connection therewith have been made. Among the improvements are installation of permanent floor racks, design of ice bunkers, door fastenings, air circulating fans and waterproofing car floors and side walls.

The prime responsibility of the department is the safe transport of freight of a perishable nature moving in refrigerator cars. That includes meats, fruits, vegetables, dairy products, frozen preparations and many other perishable items all of which require special attention en route to prevent spoilage.

The duties and responsibilities of the refrigerator department include the handling and supervision of:

- Charges for refrigeration.
- Charges for ice and salt.



A. C. Dewhirst, manager, Santa Fe refrigerator department, with headquarters in Chicago.

Charges for protective service against cold (heater service).

Supervision of operating rules covering all classes of perishable protective service.

Defense of protective rates, rules and charges before the Interstate Commerce Commission and state regulatory bodies.

Supervision of ice supply to protect ice requirements.

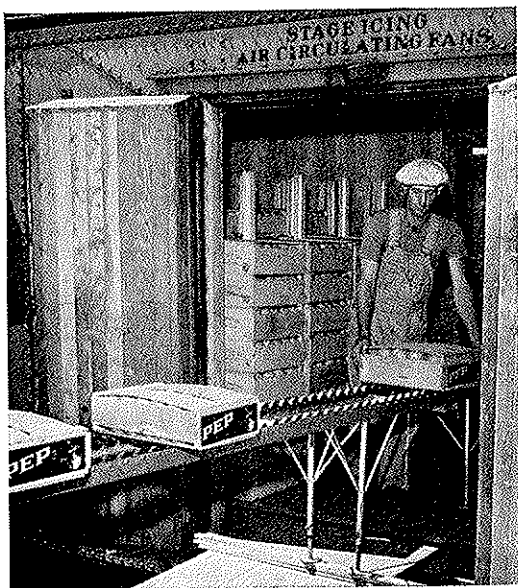
Constant check of car supply (refrigerator car).

Check and consultation with traffic and operating departments in regard to freight schedules.

Supervision of scheduled refrigerator car service (which is the operation of refrigerated or heated cars for less-than-carload perishable shipments).

Supervision of loading of scheduled refrigerator cars.

Supervision of meat packers' peddler cars and arranging schedules for such cars. (Cars containing less-than-carload shipments and moving from town to town or terminal to terminal).



A cool and careful journey awaits this shipment of choice peaches as it rolls into a Santa Fe refrigerator car.

Supervision of diversion and reconsignment of carload perishable freight.

Supervision of refrigeration accounts, ice, heater service accounts.

Supervision of refrigeration rates, rules and regulations as published in National Freight Committee's Perishable Protective Tariff.

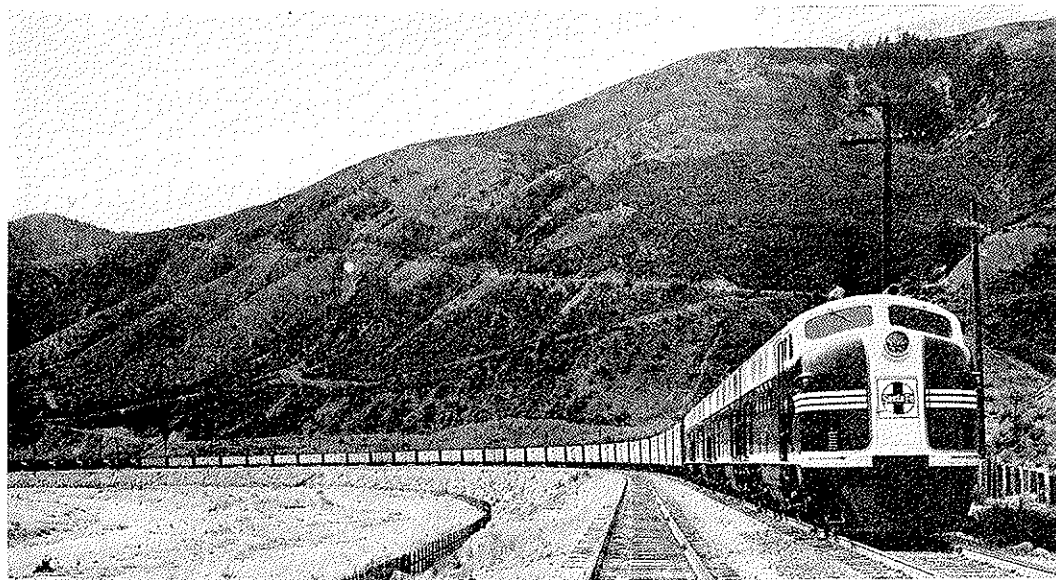
Supervision of passing reports covering carload perishable freight.

Supervision of eastbound manifest work (all carload traffic passing Barstow) for the use of S. F. R. D. inspectors, the Chicago office and for information of all division freight agents, general agents, auditors and freight traffic manager.

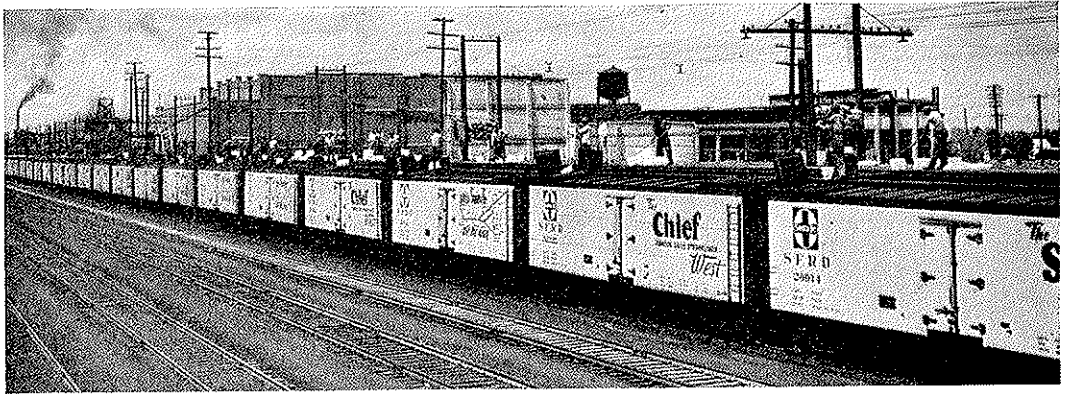
The manager of the refrigerator department works closely with shippers and consignees in regard to perishable commodities transported or to be transported in order that proper protective service may be agreed upon and applied.

The refrigerator department's system-wide staff consists of especially trained men who are familiar with the principles of railway refrigeration and the various classes of protective service essential to the safe transportation of perishable freight.

That staff consists of an assistant manager at Los Angeles, general agents at Los Angeles and San Francisco, and traveling agents at Fresno, Topeka, La Junta, Fort Worth, Amarillo and Winslow, who work closely with packers, growers and perishable freight shippers, determining the latter's needs to properly transport and market their products and crops. That includes the determination of the approximate number of cars of each commodity which will move during a shipping season or periodically and an assurance that car supply, ice, salt and other requisites will be adequate. Every effort is made to cooperate with Santa Fe patrons in their perishable transportation problems.



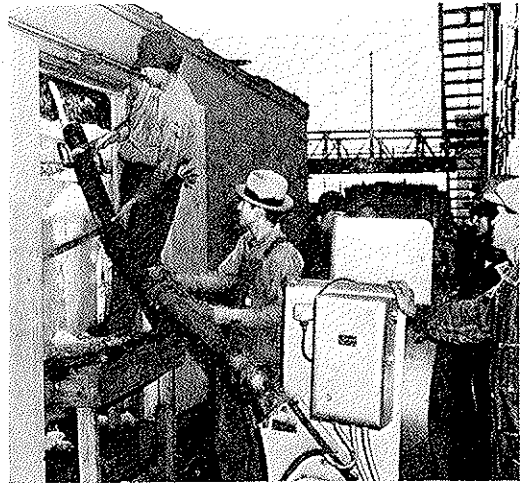
The prime responsibility of the Santa Fe refrigerator department is the safe transport of freight of a perishable nature moving in refrigerator cars. Here we see a train of loaded "reefers" moving swiftly and efficiently toward its eastern destination.



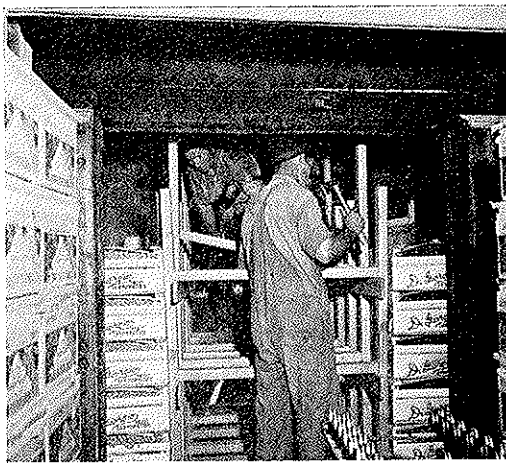
Icing bunkers of refrigerators at Winslow, Ariz.

The refrigerator department's supervisory officers participate in field investigations of areas in the Southwest and in other Santa Fe localities, the development of which gives promise of producing marketable crops. In that way, volume perishable movements have come into existence, providing more food for America's tables and greater prosperity for Santa Fe communities. (See agricultural department).

The department has trained inspectors stationed throughout the system lines at icing and inspection terminals. These inspectors personally look after each car of perishable freight passing through their respective stations. They determine that all refrigeration and ventilation instructions as carried on the way bill are being complied with and perform, at their station, all necessary services to the car.



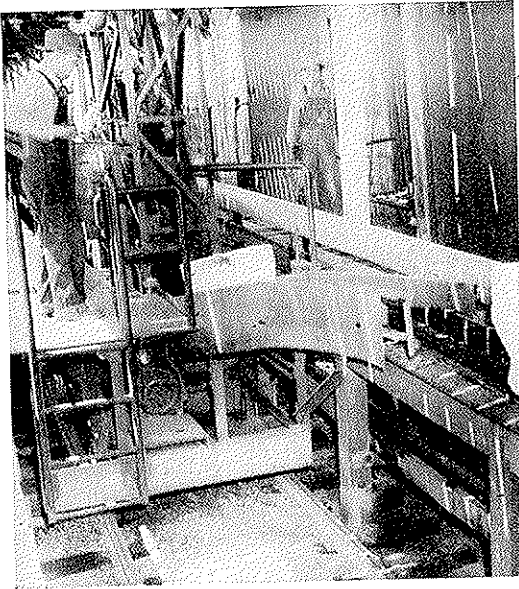
Snow icing being applied to refrigerator freight at Kansas City, Mo.



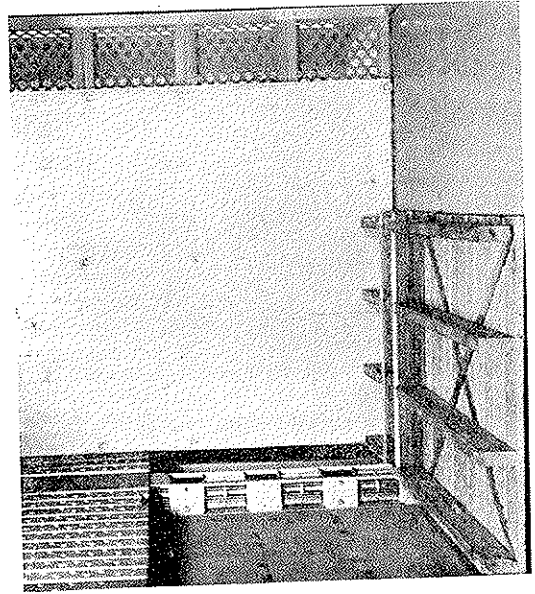
Rows of boxes of grapes being braced by workmen in a Santa Fe refrigerator car to prevent load from shifting. A shifting load will result in numerous smashed and damaged boxes.



Here an efficient crew of Santa Fe workmen are deftly applying blanket form insulation inside a refrigerator car in for general repairs at the West Wichita, Kan., shops.



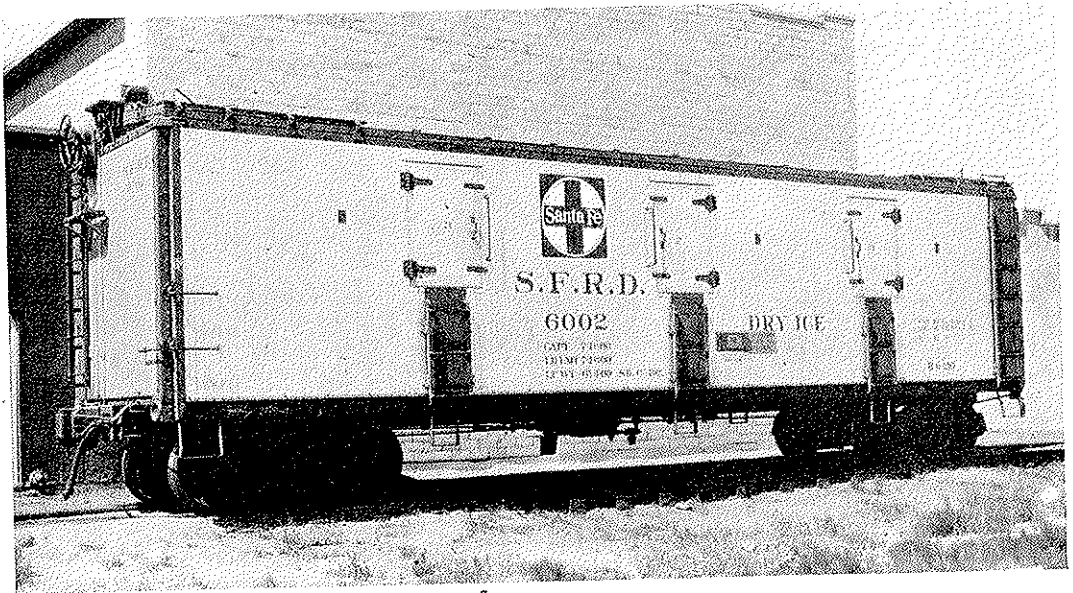
New slinger is used in top icing.



Fans are located in floor near bunkers.

No car of perishable freight originates on or is interchanged with the Santa Fe without advice promptly being given to the manager of the refrigerator department at Chicago. The movement and services for such cars are watched over by a corps of trained experts in protective service mat-

ters who are on duty at all times to inspect and service the cars. A code of rules covering these procedures is standard on the lines of all carriers. Proper interpretation and application of such rules require constant alertness on the part of supervisory forces of the refrigerator department.



One of thirteen dry ice cars used to handle dry ice shipments. The bulk of carloads of dry ice moves to California destinations, although there is some movement to Houston and other Texas destinations.

The Live Stock Department

MORE than fifty years ago the fact that livestock traffic and the live stock industry were going to develop greatly as Santa Fe territory developed was foreseen by the management and a live stock department was set up to look after the movement of livestock exclusively. The wisdom of this decision is attested by the fact that today the Santa Fe is the largest rail carrier of livestock in the United States. There is a continuous movement of cattle, sheep, goats, hogs, horses and mules over the Santa Fe System lines, comprising over 100,000 carloads annually, the majority of which originates on Santa Fe rails.

The Santa Fe penetrates the heart of the range area—The Great Plains, Rocky Mountain, Intermountain, Pacific and Gulf Coast areas, where livestock is produced largely on native grasses, browse and other forages which grow on uncultivated lands. Cattle comprised the first major freight movement over Santa Fe rails. Ever since the Santa Fe came into existence it has been an important "livestock" road.

The Santa Fe works closely with the thousands of Americans who make up the livestock and meat packing industries—farmers, ranchers, marketers, stock yard companies, commission houses, buyers and sellers—in the huge annual task of providing meat for the nation. The Santa Fe livestock representatives are familiar with the problems of the livestock industry and with the necessity of proper arrangements and facilities for the prompt handling, care and movement of livestock.

The Santa Fe owns and operates the largest fleet of stock cars in the United States—7,207 single deck and 1,678 double deck stock cars. Santa Fe feeding yards at Emporia, Kan., and at Morris, Kan., are conceded to be the most modern, best equipped and most systematically and conveniently arranged of all stock yards. Almost all Santa Fe stations in the range area have stock facilities. Santa Fe train schedules are attuned to marketing requirements at Kansas City, Chicago, Los Angeles, St. Joseph,

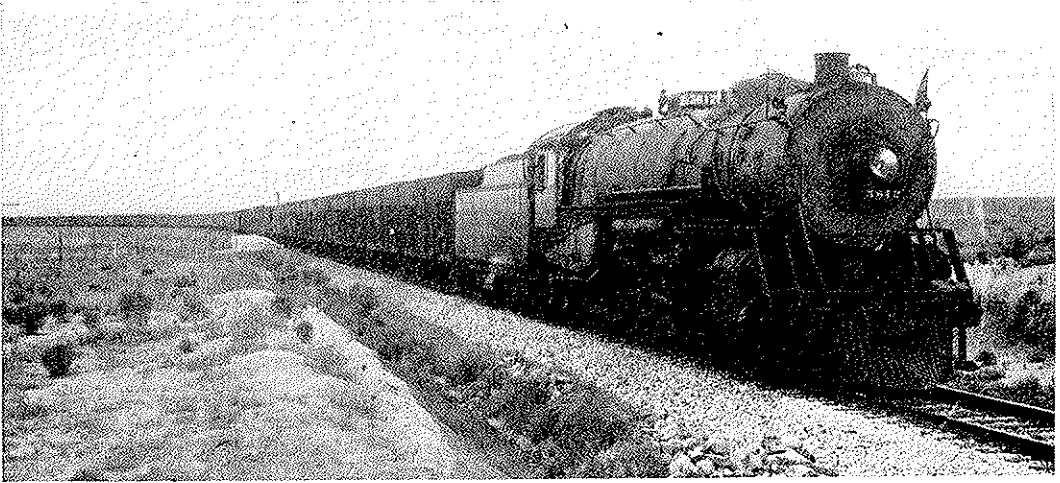


W. E. Goodloe, general live stock agent, with headquarters in the Live Stock Exchange Building, Kansas City, Mo.

St. Louis and other markets. The Santa Fe's westbound livestock train No. 41 out of Belen is one of the fastest of its kind.

The live stock department, W. E. Goodloe, general live stock agent, Live Stock Exchange Building, Kansas City, Mo., is a special division of the Santa Fe's traffic department. Two assistant general live stock agents, one of whom specializes in solicitation and service, the other in claims and claim prevention, a special representative and a live stock agent are located at Kansas City, the center of livestock activities on the Santa Fe. Live stock agents also are located at Wichita, Pueblo, El Paso, Amarillo and San Angelo. At Ft. Worth, S. W. Wells serves as general live stock agent of the Gulf Lines, assisted by a traveling live stock agent.

First responsibilities of the Santa Fe's live stock department are to foster and encourage the development of the livestock



A typical Santa Fe stock train. The Santa Fe owns and operates the largest fleet of stock cars in the United States—7,207 single deck and 1,678 double deck stock cars.

industry throughout Santa Fe territory, to solicit traffic, and to assist in prescribing rates, rules and regulations for the handling of livestock. The department likewise submits to Santa Fe traffic and operating executives suggested changes in schedules or services deemed necessary for the speedy and safe delivery of livestock entrusted to the Santa Fe.

All members of the live stock department have a practical knowledge of livestock shipping problems. Special attention is given any complaints which may arise. In turn, knowledge of the Santa Fe's rules and regulations (which embody I. C. C. and other regulatory and recommendatory practices) is imparted to shippers. Care is taken that all patrons experience a just and equitable administration of existing rules and regulations.

Santa Fe live stock department representatives contact regularly shippers and receivers of livestock at markets and at other points throughout their territories, inspect country stock yards' facilities and report any needed repairs to the Santa Fe's division superintendents. The representatives also investigate requests for new stock yards and leases, supervise loading and unloading of stock and ride stock trains when necessary, see that adequate equipment is provided at loading stations and assist shippers and caretakers in the matter of tickets. They determine that sufficient feed is on hand for regular and emergency feeding, keep in touch with all livestock movements and services, handling where necessary

with departmental and supervisory officers for beneficial improvements.

There are competent rate men and a complete file of livestock tariffs is maintained. A teletype report of train consists reaching the Kansas City office twenty-four hours a day enables the movement of livestock to be closely watched and supervised, thus permitting the consignee to obtain reliable information as to the location of his stock and its probable arrival at destination.

Santa Fe live stock agents attend as many livestock conventions, livestock shows and meetings as possible. Through those channels and through personal contact with the county, state and governmental agricultural and livestock officers as well as livestock producers, marketers and packers, livestock problems, trends, supply, demand, and related matters within the industry are determined.

Not so long ago, cattle were being driven overland from the plains of Texas and other southwestern areas to the newly-laid Santa Fe rails in Kansas, Colorado and New Mexico. The Santa Fe opened up accessible markets for those areas, enabling them to greatly expand their livestock operations.

The Santa Fe built numerous branch lines throughout Kansas and other states. Those lines exclusively served communities producing livestock and farm products. All of them were enabled to market their livestock and crops and to prosper accordingly.

Railway transportation of livestock is such that we endeavor to make on-time delivery of all shipments. The railway company

supplies the cars, often transporting the empty cars great distances. The railway company furnishes bedded cars (sand, hay or straw) and maintains a supply of bedding material at loading points. Any necessary rebedding en route is done at carrier's expense.

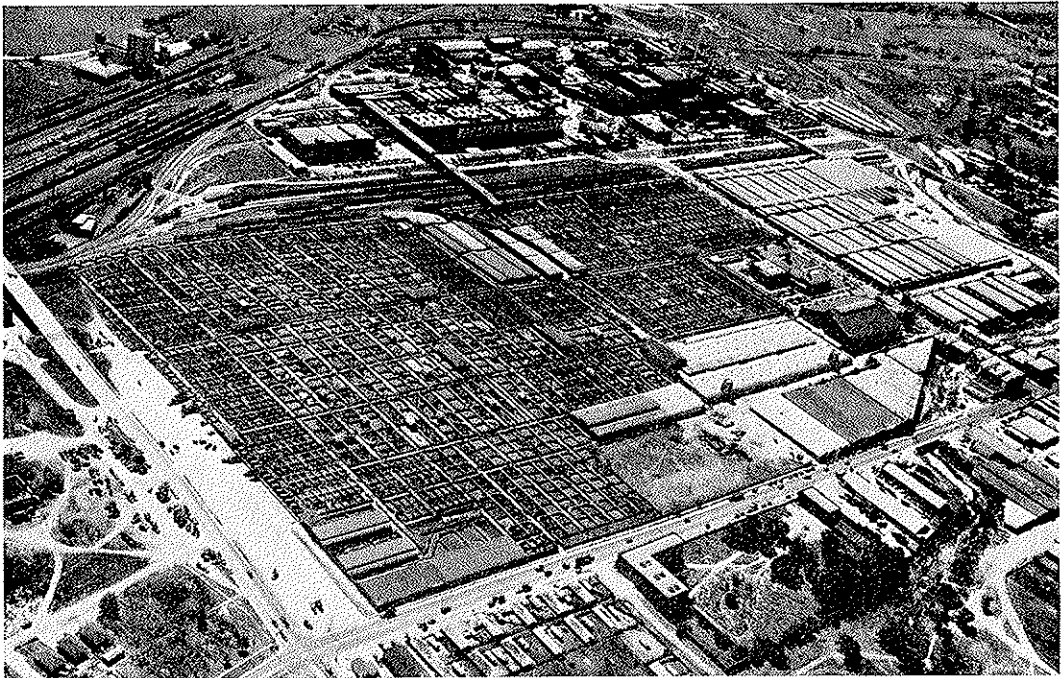
County, state and federal agencies have combined with the railways in the study of livestock handling. Stock may remain in cars twenty-eight hours (thirty-six hours if a release is signed by shipper) following which it must be unloaded into suitable pens for feed, water and rest. Caretakers are permitted to accompany the stock and, with railway trainmen, do what is necessary to protect and care for it. The caretakers ride in the caboose. If there are six or more caretakers on a single train, a special drovers' car is provided. The caretaker is allowed liberal return privileges on passenger trains.

Feeding and grazing in-transit privileges, made possible by special rates and stop-off privileges, enable shippers to move their stock from one feeding or grazing ground to another. In dry years this service is particularly valuable. Stockmen are enabled to fatten their stock and to keep it in

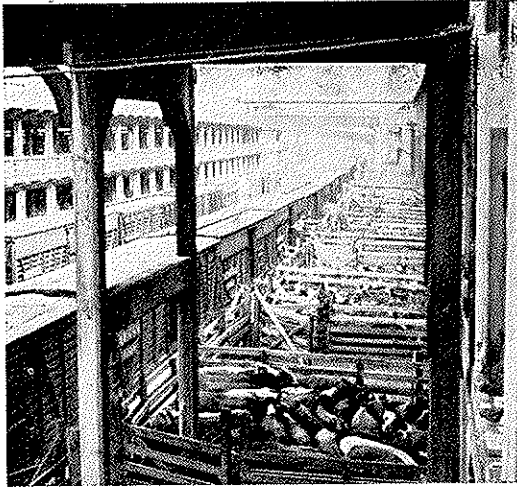
a healthy and favorable condition, ready for the market. Only the railway has the facilities to transport livestock any great distance or to handle large movements of stock.

The Santa Fe has many modern stock yards located beside its rails for use in stopping livestock for feed, water and rest, in compliance with Federal laws and for loading the livestock produced locally. Some of these yards are capable of supplying all the livestock needs of the community — pens, chutes, shelters, scales, water, feed, bedding, troughs, lights, hydrants, pumps, windmills, tanks, feed barns, feed racks, dipping vats, sorting pens, holding pens, granaries, branding chutes and other facilities. At some points it is necessary to bring in water and other necessities.

On the Second District of the Santa Fe's Middle Division (in Kansas) are several small stations — Matfield Green, Cassoday and others — names that have played an important role in America's livestock and meat packing industries. It is a rolling country with beautiful farms and hilly acres covered with long bluestem grass. Once there were unbroken miles of the bluestem during the early cattle days upon which the longhorns from Texas grazed en



Many acres of stock pens hold cattle in North Fort Worth, Tex. Before the Santa Fe opened up accessible markets, cattle were driven overland from the plains of Texas and other southwestern areas to the newly-laid Santa Fe rails in Kansas, Colorado and New Mexico.



This view shows a section of the unloading pens of a train of Santa Fe cars spotted at the yard for that purpose.

route north to the railroad for loading for the market. The longhorns disappeared but native cattle movement into this area continued. The Santa Fe handles many thousands of cars of native cattle into this blue-stem area each year, which, after grazing for a period of one hundred days or so, are reloaded for the market.

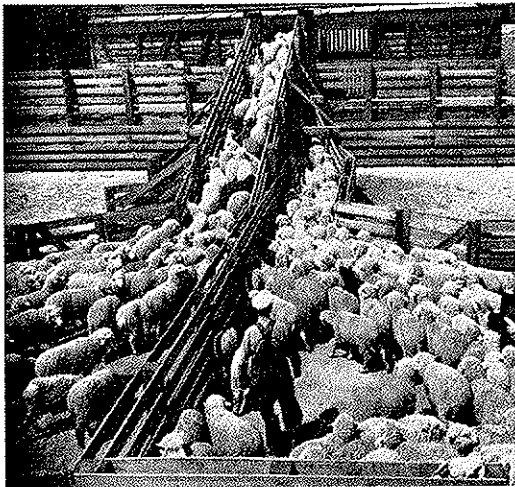
From humble beginnings the Santa Fe feed yards at Emporia have steadily expanded so that today the cattle yard has a

capacity of 175 40-foot cars. There are 66 pens (20 covered), concrete floors and alleys, water trough, hydrant, feed racks, and grain bunks in each pen, 25 chutes, 23 pockets and a 20-ton hoof scale. The yard is flood-lighted, has two hay barns (capacity 1,000 tons), a branding chute and is equipped for long-time feeding of cattle.

The sheep yard at Emporia has a capacity of 147 40-foot double deck cars or 294 40-foot single deck cars. It embraces 79 pens and 3 barns with water troughs, hydrants, self-feeders, and salt boxes in each pen, 27 double deck chutes, 29 double deck pockets, ten-man electric sheep shearing plant, 70-ton wool storage, 400-ton alfalfa storage, 57,750 bushel grain elevator, electric grain grinder and feed mixer, and has concrete alleys, dirt floors, and a 20-ton hoof scale and is equipped for long-time feeding of sheep.

The Emporia yards readily are available to the Kansas City market (112 miles distant); the St. Joseph market (134 miles distant) and the Chicago, St. Louis and Omaha markets not far beyond.

The Morris Feed Yards at Morris, Kan., (nine miles west of Kansas City) have a capacity of 147 40-foot cars. The sheep yards have a capacity of 183 double deck cars. The Morris cattle yard consists of 97 pens inside five barns and 39 outside pens. Water trough, hydrants, feed racks and grain bunks are in each pen. There is a

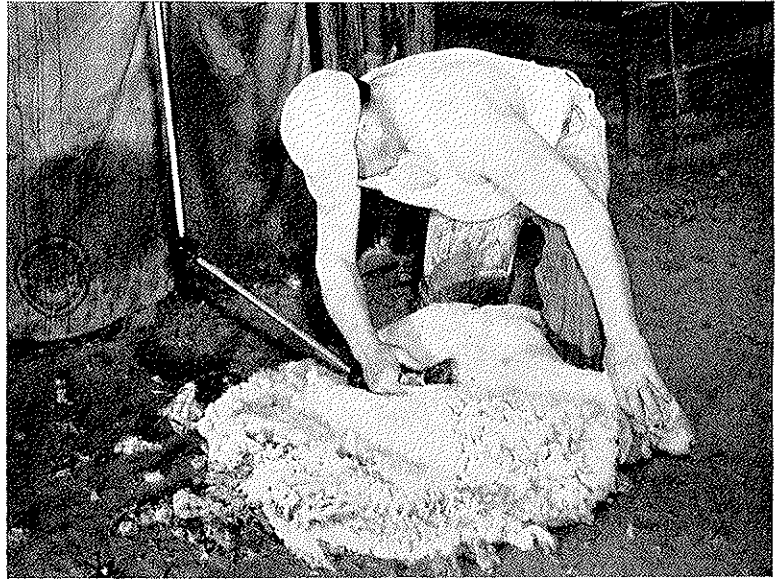


Loading sheep into a double-deck stock car. The Santa Fe has many modern stock yards located beside its rails for feeding, watering and resting livestock en route to market.



A general view of the sheep yard at Emporia, Kan., which has a capacity of 147 40-foot double deck cars or 294 40-foot single deck cars. The cattle yard has a capacity of 175 40-foot cars.

Sheep-shearing in the Emporia yard. In addition to the ten-man electric shearing plant maintained here, space also is provided for the storage of 70 tons of wool.



20-ton hoof scale, electric lights, branding chute and elevator warehouse for hay storage. Yards are equipped for long-time cattle feeding.

The Morris sheep yard consists of 116 pens inside seven barns and 46 outside pens. Water troughs, hydrants, self-feeders and salt boxes are in each pen. There are eight single deck and four double deck chutes, electric lights, 12-man electric shearing plant, elevator warehouse for wool storage, 250-ton alfalfa storage, 43,000 bushel grain elevator, electric grinder and feed mixer.

Alleys have cinder and crushed rock floors. Barns and pens, except loading pockets and loading chute alley, are paved with concrete. There is a ten-ton hoof scale and twenty-four-hour facilities for stockmen. Yards are equipped for long-time feeding of sheep.

The modern and systematic arrangements and the equipment of the Emporia and Morris yards place them at the head of all livestock feeding yards in the nation. The unloading-reloading dock, alleys, pens and scales are arranged in such relationship to each other as to permit livestock to be



The Morris Feed Yards at Morris, Kan., are privately operated and are served exclusively by the Santa Fe. It has a capacity of 147 40-foot cars.



Typical range scenes in the far-flung livestock territory served by the Santa Fe.

taken from cars to scales and thence to pens for feeding and returned for loading with a minimum of handling. The barns at these yards are equipped with the latest and most approved machinery and appliances. Both yards are manned by a trained, experienced personnel.

As a natural consequence of this specialized department, it was not long after its establishment that the livestock industry and shippers wanted their complaints and claims for loss and damage to livestock in transit handled to conclusion by men who knew and who understood their problems and point of view; therefore, over forty years ago the investigation and adjustment of complaints and claims on livestock in transit and claim prevention were taken over by the live stock department, thus making its service to the industry all inclusive.

The Santa Fe handles forty to fifty per cent of all the livestock received by rail at the Kansas City market. Prompt settlement of claims is consummated by the ability of live stock department personnel to contact commission men, shippers and traders, with a minimum of inconvenience for all concerned. It also retains the good will

and provides a deeper insight into shippers' problems by providing a close contact at the time the stock is brought to market. It is a distinct Santa Fe service.

Intelligent handling of claims demands a working knowledge of legal liability, familiarity with freight claim rules, and, in the case of livestock, a knowledge of the anatomy and disposition of animals, their habits, diseases, symptoms and the prevailing prices on livestock. Livestock claim work also demands familiarity with traffic rules and regulations, quarantine regulations, conditions incorporated in the uniform livestock contracts, and related matters.

All local Santa Fe agents and other operating personnel participating in the Santa Fe's livestock movements co-operate with the live stock department in rendering all possible service to livestock patrons. Livestock in transit represents one of the highest types of perishable freight. It depreciates (shrinks) in proportion to the length of time it is in transit. All livestock when delayed requires special attention. Santa Fe people are trained to exercise proper precaution in the handling of livestock placed in their care.

The Agricultural Department

FROM its beginning the Santa Fe has pioneered in agricultural development and livestock handling. The transportation of farm crops and livestock today comprises one of the most important sources of Santa Fe revenue. For several months each year, wheat holds the center of the Santa Fe's traffic stage, crowded by citrus and other crops from California, Arizona, Texas and New Mexico. All over Kansas and the Middlewest, into the Rockies and down to the Gulf of Mexico—the corn, wheat, citrus and cotton belts—grain, vegetables, fruits and cotton converge on Santa Fe rails. Winter finds no let-up as citrus fruits, and lettuce and other winter truck garden crops, roll out of Arizona, California and the Southwest.

There is never a moment when many cars of fruits, vegetables, cotton or grain, produced alongside Santa Fe rails, are not moving over those rails to market. The Santa Fe, working for decades as a guiding agency, has been responsible for the start and continued growth of much of that agricultural development (embracing twelve states and the leading agricultural areas of the nation).

The Santa Fe's participation in Southwestern agricultural development, shared by all traffic representatives, is the particular responsibility of the agricultural department. General Agricultural Agent H. M. Bainer, Amarillo, directs the system-wide activities of the department, assisted by Agricultural Agents H. E. Adams, Fresno (for Coast Lines), Estin C. Whipple, Galveston (for Gulf Lines), and R. I. Cross, Amarillo (for Western Lines and Panhandle and Santa Fe).

Agricultural development within Santa Fe territory continues today on a broad scale. The agricultural department works closely with county, state and federal agencies. Where formerly it was the vocation of the agricultural department to assist in virtually all ways all farmers and ranchers within Santa Fe territory, much of that work today has been assumed by the above agents; the need for Santa Fe co-operation, however, will always exist. Farming is a demanding and specialized vocation and the railway traditionally is a part of it.



H. M. Bainer, general agricultural agent, with headquarters in Amarillo, Tex.

Through personal contact with farmers and ranchers and by membership in and co-operation with various national organizations, the agricultural department shares in the work and the problems of this nation's greatest industry. Those organizations include: The National Grange, national and state farm bureaus, Farmers Union, state and national reclamation associations, state and national farm chemurgic organizations, American Railway Development Association, American Society of Agricultural Engineers, civic and cultural and commercial organizations, crop improvement associations, soil conservation districts and others. Constructive benefits result from co-operation with agricultural colleges, state boards of agriculture, experiment stations, U. S. Department of Agriculture agencies, demonstration farms, machinery demonstrations; also through contacts at county and state fairs.

In co-operation with the Santa Fe's public relations department much good has been accomplished in working with the 4-H clubs (Head, Heart, Hands, Health) and the



In the wealthy wheat belt of the Southwest, near Garden City, Kan., are shown combines and trucks working during harvest season. This is the phase before the grain is loaded into Santa Fe cars and begins its way to tables the world over.

Future Farmers of America, the Santa Fe sponsoring educational awards for achievements in diversified farming that have brought stimulation and happiness to the youthful membership of those organizations.

The Santa Fe's colonizing and immigration activities began in the early 1870's shortly after the start of Santa Fe construction. Homeseekers came in by the thousands (into what is known as the Santa Fe Southwest—Kansas, Colorado, Texas, Indian Territory, New Mexico, Arizona, California). The Santa Fe helped those settlers with the various agricultural problems confronting them, advising them in regard to climatic and other conditions, bringing in necessary supplies and, when droughts played havoc with their crops, transporting both settlers and supplies in the general alleviation program. The latter events, however, were the exception rather than the rule. Kansas' prairies more and more came under cultivation and the vast territory beyond enjoyed a slow but continued growth.

Agriculture, including livestock, was the basis of that development. At first only necessary crops were raised. Gradually large acreages of wheat, corn and other products came under cultivation and a huge industry was in the making. As development continued, farming became highly specialized. The quality and quantity of production, receiving the attention of the

Santa Fe and the tireless labors of the settlers, stepped up yearly.

The Santa Fe's agricultural department was organized in 1910 to handle agricultural development matters and to provide demonstrators to assist the farmers in acquiring a knowledge of preferred farming methods. That was five years before the first county agricultural agents were employed and ten years before general employment of such agents got under way. Settlers were helped with all kinds of agricultural problems, advised in regard to adaptable crops and livestock, and suitable cultural methods. The Santa Fe agricultural department's demonstrators personally contacted and co-operated with thousands of farmers scattered throughout the Southwest. Between 1911 and 1918, farmers in New Mexico, Texas, western Oklahoma, western Kansas and eastern Colorado were furnished (free of cost) suitable seed in sufficient quantity to plant ten acres each of crops such as wheat, cotton, kaffir, milo maize and other grains. Approximately 50,000 bushels of the best wheat, cotton, barley, grain sorghum, cane and other seeds obtainable were distributed. Santa Fe demonstrators supervised the planting and growing of all such crops.

The results of the co-operative crop growing demonstrations were very satisfactory. They were of assistance in starting the right kind of crops and in introducing

proper cultural methods. From the several carloads of certified seed wheat brought in and distributed by the Santa Fe, and the increase of that seed, the Santa Fe literally set the stage for large scale wheat production.

In addition to demonstrational crop production work with individual farmers, the production of livestock was stressed—beef and dairy cattle, sheep, hogs and poultry. "Diversified farming" was adopted as the agricultural department's slogan. A "cow, sow and hen" program was vigorously pushed through individual contacts, meetings, demonstration trains, boys' clubs, newspapers and other agencies. Through Santa Fe agricultural demonstrators, pure bred beef and dairy bulls were brought into the country. Farmers also were assisted in locating and bringing in good sheep, hog and poultry breeding stock.

The Santa Fe organized and managed the first Boys' Kaffir Club in the United States. That was in 1912 at Sweetwater, Nolan County, Texas, a total of twenty-five members. Those boys produced, by improved scientific methods, an average yield of twenty-seven bushels of kaffir per acre, as compared with an average of ten bushels produced the same year on the same farms by their fathers.

In 1913 and 1914, the Santa Fe organized and managed the first boys' kaffir and milo-maize club in Potter and Randall counties, Texas, with headquarters at Amarillo. Twenty worth-while cash awards were offered as prizes to approximately forty-five members.

Those clubs were forerunners of the initial 4-H Club, which came into existence about thirty years ago, the Future Farmers of America, and other farm youth organizations.

Since its organization in 1910 the Santa Fe's agricultural department has prepared, published and distributed farm educational bulletins bearing the following titles:

- Diversified Farming in the Southwest (three editions).
- Better Crops in Kansas.
- Better Tillage Methods.
- Why More Dairying.
- Better Farming, Dairying, Silos, and Poultry.
- Home Welfare.
- Sweet Clover.
- Winning with Wheat.
- The Pinto Bean.
- Better Farming in Oklahoma.
- Dairy, Poultry and Livestock.
- Silos and Their Uses (two editions).
- Cows, Sows and Hens.
- Farm Poultry.
- Storage of Fruits and Vegetables.
- Dairying in the Arkansas Valley of Colorado.
- Agriculture in the Santa Fe Southwest.
- Agriculture in the Santa Fe Southwest (featuring Arizona).
- Agriculture in the Santa Fe Southwest (featuring New Mexico).
- Our Soil and Water Responsibilities.

Those bulletins were issued in editions ranging from 5,000 to 100,000 copies each. They were distributed from demonstration trains, through civic organizations, schools, colleges, at special meetings, by mail and through other channels. Needless to say, the publications saved Southwestern farmers time, labor and money and did much to put individual farms on a productive and profitable basis.

The Santa Fe to date has operated a total of twenty-five agricultural demonstration trains over various portions of its system

AGRICULTURAL AGENTS



H. E. Adams
Fresno, Cal.



E. C. Whipple
Galveston, Tex.



R. I. Cross
Amarillo, Tex.

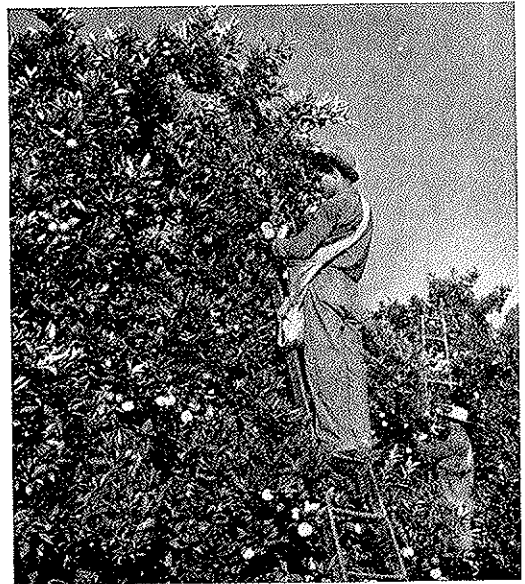
Through personal contact with farmers and ranchers and by membership in and co-operation with various national organizations, the Santa Fe agricultural department shares in the work and the problems of this nation's greatest industry. On this and the following pages are illustrated the broad effects of these activities.



Carrot fields near Grants, New Mexico.



A famous table grape, Red Malagas, being picked on a huge farm in Kern County, California.



Picking oranges in one of California's numerous citrus groves.



Winter lettuce grown in the Salt River Valley help supply the nation's markets.



Texas, with its great white wealth of cotton.



Loading cotton at a Galveston, Tex., wharf.



Rooting out the spuds with a tractor-pulled potato digger in a field in Kern County, California.



Loading broomcorn at Lindsay, Okla.

lines, mostly in co-operation with agricultural colleges. While several of the programs of those trains stressed diversified farming with livestock and poultry, others emphasized specialized farming, insect control, better homes and other subjects. Some of the leading demonstrational trains were:

- New Mexico Agricultural Special.
- Diversified Farming Special.
- General Farming Special.
- Better Farming Special.
- Crop Rotation Special.
- Kansas Wheat Festival Special.
- Greater Farm Crops Special.
- Better Wheat Special.
- Cow, Sow and Hen Special.
- Farm and Home Special.
- Kansas Opportunity Special.
- Hessian Fly Special.

- Home Welfare Special.
- Grain Storage Special.
- Silo and Silage Special.

Thousands of residents greeted and visited those specials as the latter followed special schedules across designated territories. Their messages were constructive and educational and mutually profitable. Throughout the entire period of Santa Fe colonization and development one fact stood out: Worthy people participated in and profited by a worthy endeavor.

The Southwest is large and its potentialities are great. Its development will continue for many years. The exigencies of World War II demanded a great inventory (the Santa Fe and many other agencies participated) of the industrial and mineral resources of the West and Southwest. The composite picture was a noteworthy aid to our government and to war industries. It disclosed, too, a broad scale of postwar possibilities. Not so spectacular but equally strong and as steadily progressive is the agricultural growth of those areas.

Following is a list of several of the most outstanding developments along Santa Fe rails which the agricultural department has helped bring into production during late years, some of which are still under development:

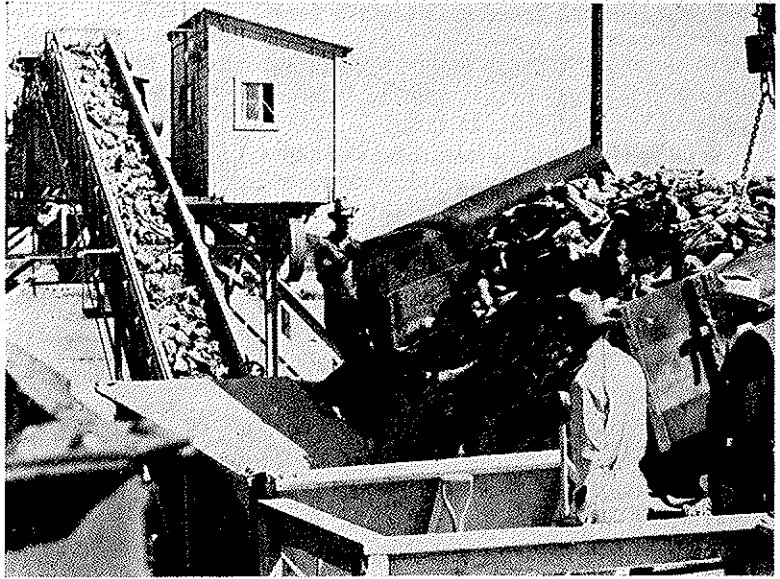
The Bluewater Project (western New Mexico). Carrots, cabbage, cauliflower and various truck garden vegetables.

Middle Rio Grande Conservancy District (Albuquerque area). Lettuce, beans, peas, onions, alfalfa, carrots, poultry, dairying.



Combining wheat in Garfield County, Oklahoma.

The Santa Fe has aided in the introduction of sugar beet growing to Texas agriculture. Here beet is being loaded on freight car for delivery to Colorado processing plants.



Mesilla Valley (South-Central New Mexico). Alfalfa, cotton, vegetables, poultry, dairying, cantaloupes, chili and pecans.

Central Valley (California's great central valley). Alfalfa, fruits, vegetables, cotton, raisins, grapes, various dried and canned fruits and vegetables, wine.

Kera County potatoes (In California's Central Valley near Bakersfield). Volume potato movements. Cotton, alfalfa, sugar beets.

Palo Verde Valley (Blythe area of southeastern California). Cotton, alfalfa, grasses, carrots, cantaloupes, melons, lettuce.

Northwest Texas potatoes (Hereford, Plainview, Lubbock, Muleshoe areas).

House, New Mexico, potatoes. Potato development in eastern New Mexico.

Sugar Beets in Texas. Irrigation from wells. (Hereford, Plainview, Lockney, Lubbock and other points).

Ulysses Project (Southwestern Kansas). Pump irrigation, honeydew melons, cantaloupes, onions, potatoes, various vegetables.

Scott City Project (Western Kansas). Potatoes, alfalfa, sugar beets, sorghums, dairying. Irrigation by pumping from wells.

Altus Project (Oklahoma). Irrigation project, to benefit cotton, alfalfa, corn, sorghum and other productions.

Brownwood Project (Texas). Diversified farming, vegetable production.

Pecos Valley Project (Southeastern New Mexico). Alfalfa, cotton, grain sorghums,

Alfalfa is an important crop in the Washita Valley, near Pauls Valley, Okla.



vegetables, onions, potatoes, livestock feeding. (Irrigated)

Portales Project (New Mexico). Peanuts, vegetable canning, sweet potatoes, cotton, sorghums, corn, alfalfa, dairying.

Special agricultural development throughout Gulf Lines territory, emphasizing cotton, rice, peanuts, grain sorghum, onions, tomatoes, sweet potatoes, watermelons, and tung nuts.

Presidio Valley (Texas). Cantaloupes, string beans and winter vegetables, especially lettuce and carrots.

Ft. Sumner Irrigation Project (New Mexico). Cantaloupes, alfalfa, apples, peas and grapes.

Estancia Valley (New Mexico). Pinto beans, carrots and cabbage.

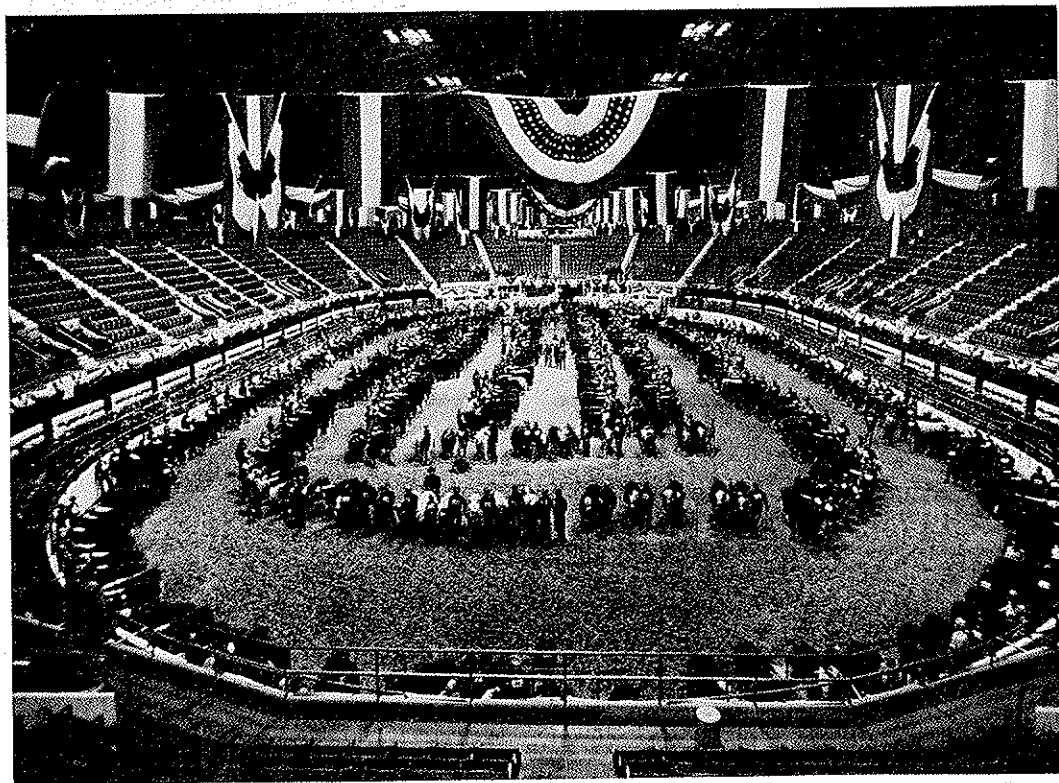
Arkansas Valley (Colorado). Sugar beets, onions, cantaloupes, watermelons, peas, potatoes, cattle and lamb feeding, turkeys and poultry.

Santa Fe agricultural representatives have co-operated with local and district authorities in the various development stages of these and many other projects. Market-

ing crops is equally as important as producing crops. The Santa Fe today as in past years plays an important role in each procedure. Many pages would be required to list the individual projects which the Santa Fe inaugurated and developed throughout its territory during the past seventy-five years.

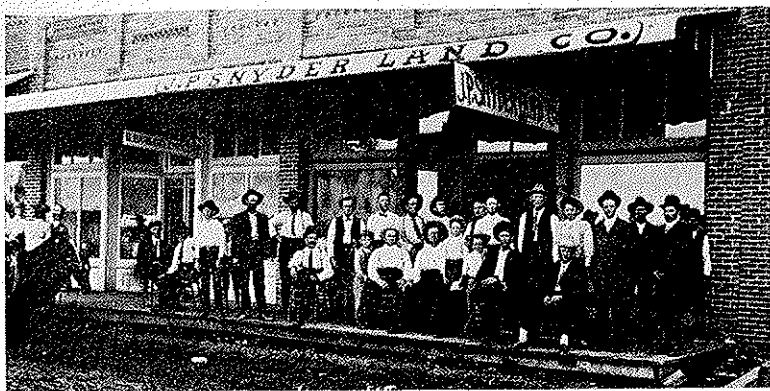
To insure efficient marketing the agricultural department surveys the various producing localities prior to the harvesting of the crops—wheat, grain sorghums, potatoes, melons, carrots, grapes, lettuce, citrus, onions and others—compiling estimates of the possible number of carloads which will move over Santa Fe rails. That enables the Santa Fe's transportation department and other departments to arrange car supply and distribution and to prepare the entire Santa Fe organization and those outside agencies who participate in the marketing details for the movements which are to follow.

Along the Santa Fe's right of ways during war days, familiar signs denoted Santa Fe "Victory Gardens." The agricultural department assisted in those contests, con-



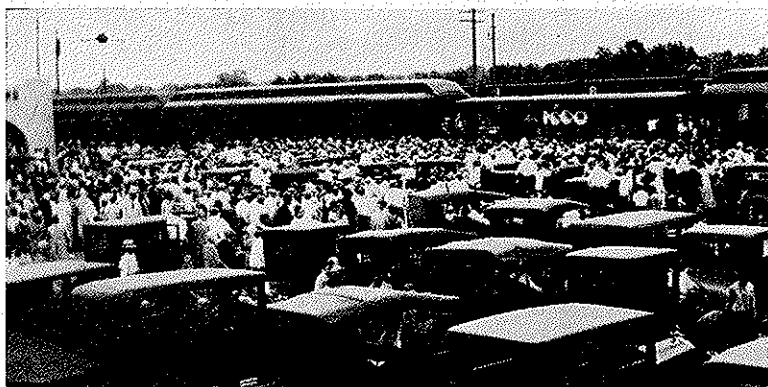
Preview of fat stock is highlight of ambition of Future Farmers of America and 4-H Club members, who are supported with educational awards by the Santa Fe Railway. Here are exhibitors in a Houston, Tex., show. Outstanding shows of this sort are also held in many other cities throughout the Southwest.

• Yesteryears in Agricultural Development •



Group of prospective settlers brought to Hereford, Tex., area through the efforts of the Santa Fe colonization department in 1906.

This is the first Boys' Corn Club in Northwest Texas. It was sponsored by the Sweetwater Chamber of Commerce in 1912 in co-operation with the early-day Santa Fe agricultural department under the direction of H. M. Bainer. This club came into existence ten years in advance of the general 4-H Club movement in Texas.



Santa Fe Wheat Improvement train at Great Bend, Kan., in 1925.



General Agricultural Agent Bainer is here shown presenting awards from Santa Fe executives to three members of the Texas 4-H winners.

ducted by THE SANTA FE MAGAZINE. Agricultural agents deliver addresses on agricultural subjects and public relations talks. Santa Fe award certificates are presented in person to members of the 4-H clubs and Future Farmers of America winning such awards. The presentation is made at special meetings in which agricultural department, public relations and traffic representatives participate.

Individual assistance is rendered farmers or groups of farmers as well as projects

and developments wherever there is a need of such service. That is accomplished by visits to particular territories and through correspondence. Many persons in the United States saw and tasted their first orange because the Santa Fe brought it to them. That same thing may be said of other agricultural products—avocados, tangerines, lemons, grapes, and others. It may more practically be applied to the presence on their tables of a good portion of the meat and other foods which they daily consume.

4-H Group from Plainview at Kansas City market with the champion calf from the 1937 Plainview fat stock show. This calf was fed by Ellis Brittian, holding the calf, who was Santa Fe award winner in 1937.

