

THE AMERICAN

ELEVATOR AND

GRAIN TRADE



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One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XL

431 South Dearborn Street, Chicago, Ill., December 15, 1921

NO. 6

WE ARE PROGRESSIVE ENOUGH
TO BE AGGRESSIVE FOR YOU

MCKENNA & DICKEY
Grain

60 BOARD OF TRADE

For your
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Communicate

HARRIS, WINTHROP & CO.

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The Rookery, Chicago

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Chicago Stock Exchange
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AND

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Seed**

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ROGERS GRAIN COMPANY

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The House

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THE ILLINOIS SEED CO.

GRASS SEEDS FIELD

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GRAIN AND SEEDS

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ADVERTISEMENT

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200 New Orleans Court Building, New Orleans, La., until 7:30 P. M., December 22, 1921, and then publicly opened for the furnishing of conveyor belts for use at the Marine Leg Unloader at the site of the Public Grain Elevator.

A deposit of Seven Hundred Dollars (\$700.00) in cash or certified check is required with proposal.

Bond of 50% of bid is required with Notarial Contract.

Payment of 95% of the bid will be made upon delivery of material on the site and after acceptance of same by the Chief Engineer of the Board. The balance will be paid 20 days after belts have been installed and finally accepted.

Proposals must be submitted on a special proposal form prepared by the Board.

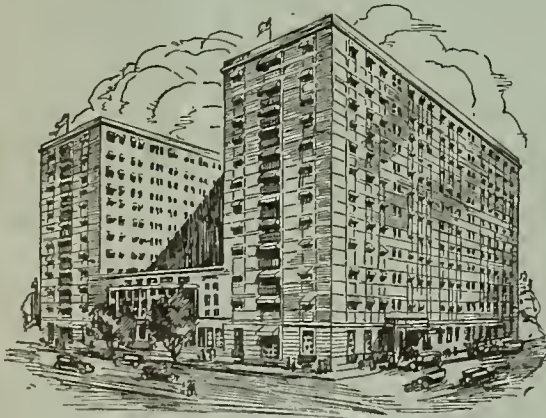
Specifications and proposal forms are on file in the office of the Supervisor of Purchases, Mr. J. W. Westerfield, No. 1 Canal Street, by whom full sets will be furnished to prospective bidders.

The right is reserved to reject any or all bids and to waive informalities.

R. S. NECHT
President.

J. F. FINKE, JR.
Secretary.

Req. Ed-10304



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THE CURTIS HOTEL

Tenth St., 3rd to 4th Aves., MINNEAPOLIS, U. S. A.
Six Blocks From the Chamber of Commerce.

Every Room an Outside Room. Every Room with Private Bath.

This Hotel Caters to the Grain and Milling Trade—Especially Suited to Conventions

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COLUMBIA MOTOR TRUCK SCALES Are the BEST—"SAVE REPAIR BILLS"

Because they are easy to build, simple in construction, well made and retain their accuracy longer than any scale on the market.

COLUMBIA SCALES are being used by practically every feed, coal, ice and material dealer in Chicago.

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Save money and send for list of our guaranteed rebuilt scales. All makes and capacities. Tell us what you want. Let us repair your scales—any make. We also carry parts. Finest equipment for scale work in Chicago.



"Western" Pitless Sheller

Season's Greetings

WE are glad to extend the season's greetings to our friends and patrons everywhere, at home and abroad. May peace, health and prosperity attend you. May your business during the coming year expand to generous proportions.

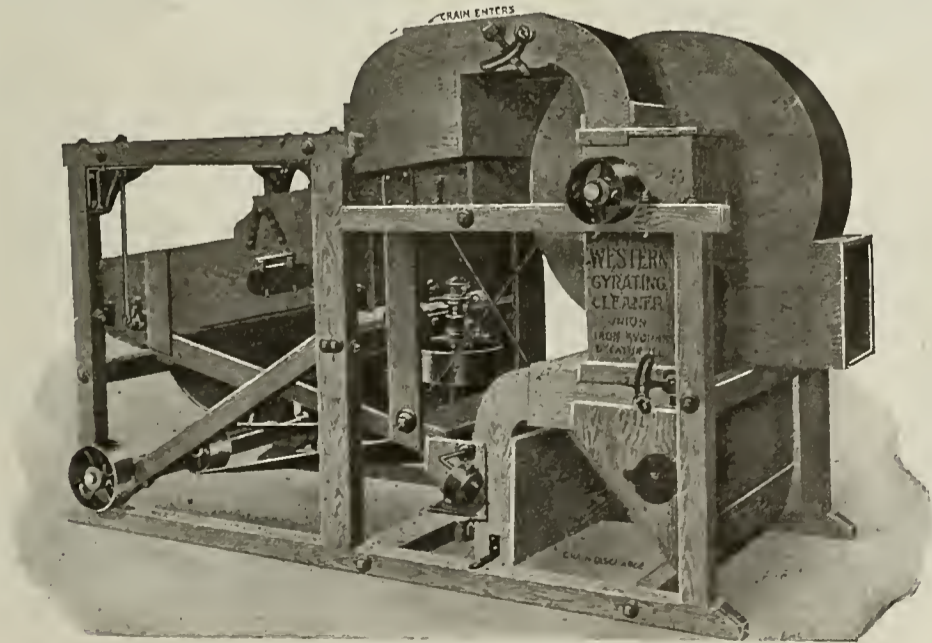
The WESTERN LINE speeds you onward towards 1922 and its high possibilities.

Everything for Elevator or Mill

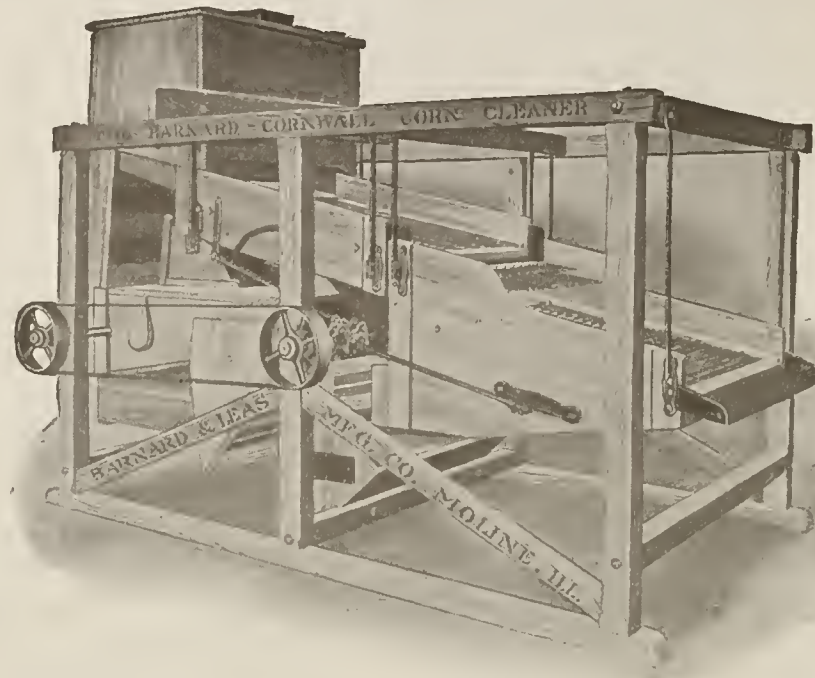
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"Western" Gyration Cleaner



The Barnard-Cornwall Corn Cleaner

Removes without clogging all cobs, cob ends, silks, husks, chaff, shrunken grains and light, broken pieces of corn, leaving the shelled corn whole and perfectly clean.

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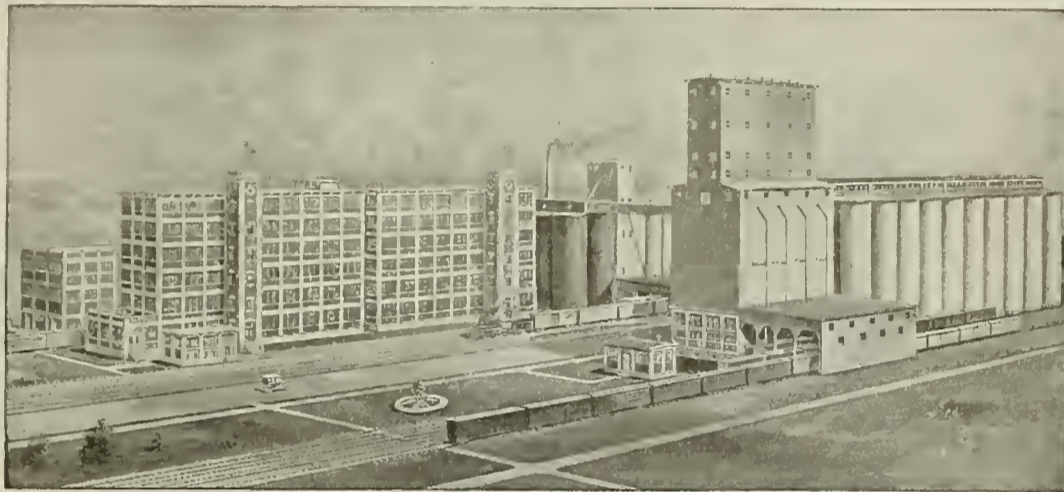
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Equipped With
Weller-Made
Elevating and
Conveying
Machinery

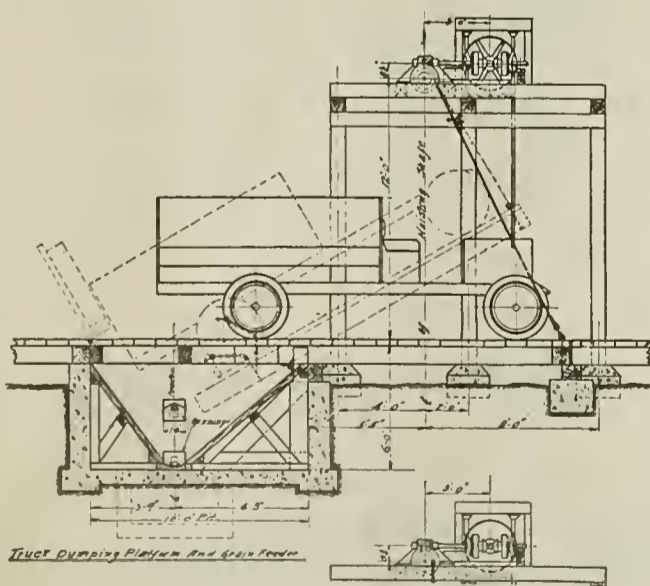
Most of the large and a great number of the small elevators and mills built in the past thirty years are equipped with Weller-Made Machinery—it is a matter of pride with us that many of our customers who, when starting, bought of us, when they were ready to expand specified for equipment made by Weller.

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You are invited to correspond with us about your equipment needs. Our engineering department is able to render most satisfactory service with layouts and suggestions and to carry out your wishes.

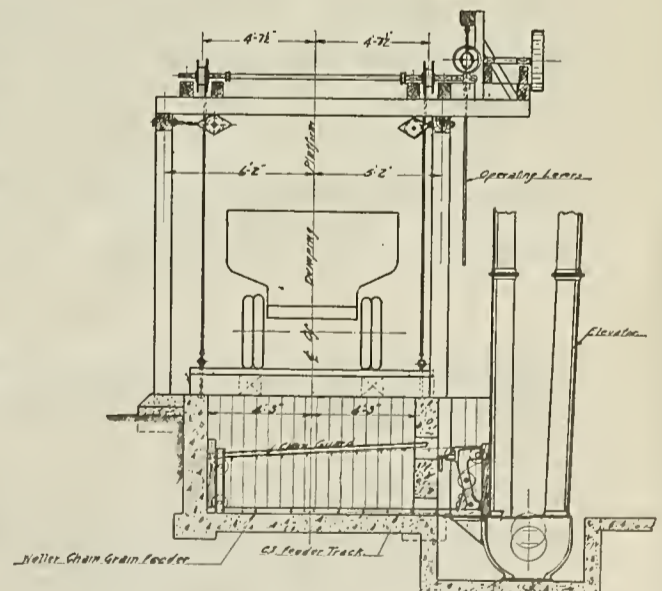
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Can be installed in any elevator.
Does not require the services of an expert; anyone familiar with tools and machinery can build the frame and install the lift.
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All the mechanism is overhead in full view of the operator at all times.
Easily controlled.
Worm gear on hoisting shaft gives positive lock at any point of lift.
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Its geographical location together with its railroads radiating to all sections of the country, makes it a logical outlet and distributing point to the East, South and Southeast.

These splendid railroad facilities assure quick handling of shipments with prompt returns on same.

Indianapolis also takes a natural



The Indianapolis Board of Trade

pride in having the largest corn mills in the country which, together with its flour mills and vast array of manufacturing industries, creates an exceedingly large local consumption of wheat, corn, oats, rye and hay annually.

This local and foreign demand makes for top prices on all shipments.

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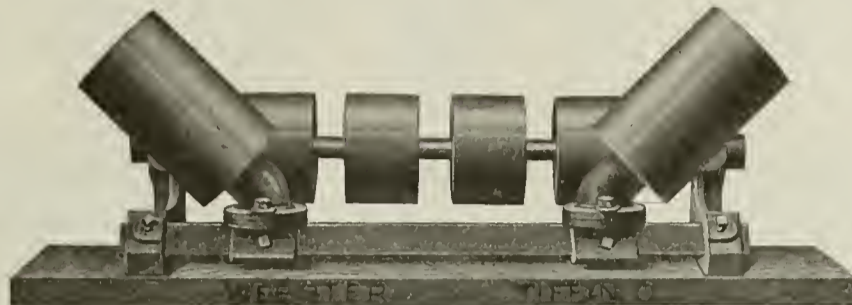
MUTUAL HAY & GRAIN CO., Hay and Grain.

STEINHART GRAIN COMPANY, Grain Commission

SWAN GRAIN CO., Wheat, Corn, Oats, Rye.

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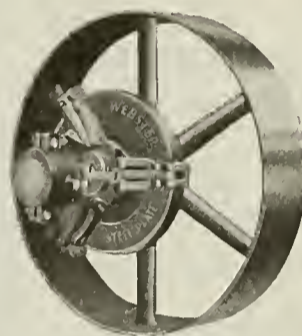
Troughing Belt Carriers



Elevator Buckets



Elevator Boot



Friction Clutch

FOR over forty years Webster Conveying, Elevating, and Power Transmission machinery has stood the test of service. It is good machinery, built to a quality standard.

We design and build EVERYTHING that goes into the modern elevator. Our engineers will be glad to go over specific requirements, either on new structures, repairs or extensions, and make recommendations.

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THE GATEWAY TO THE SOUTH AND EAST

Has the "square deal" plugging system for hay.

Has reconsignment and transit privileges and other favorable points which insures most successful handling of grain or hay shipments.



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Is the terminal point for 200,000 miles of railways and therefore a convenient shipping point for the country dealer, and local buyers are enabled to distribute all products quickly and to best advantage. Has weighing and inspection service second to none and up-to-date grain and hay merchants constantly safeguarding their patrons' interests.

Those are just a few of the reasons why you should ship your Grain and Hay to Cincinnati. Ship to any of the following responsible grain and hay firms, all members of the

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BINGHAM-SCHOLL GRAIN CO., Grain
Exclusively

BROUSE-SKIDMORE GRAIN CO., Grain,
Hay, Feed

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THE D. O. CROSS CO., Grain, Hay, Mill
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**CONVEYING, ELEVATING,
POWER TRANSMISSION MACHINERY**
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COMPLETE GRAIN ELEVATOR EQUIPMENT

Including the Well Known

**UNITED STATES CORN SHELLERS
UNITED STATES GRAIN CLEANERS**

Which are unsurpassed in machines of this character.

U. S. Quality Best

U. S. Prices Lowest

THE B. S. CONSTANT MFG. CO.
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GRIND CORN FOR PROFIT

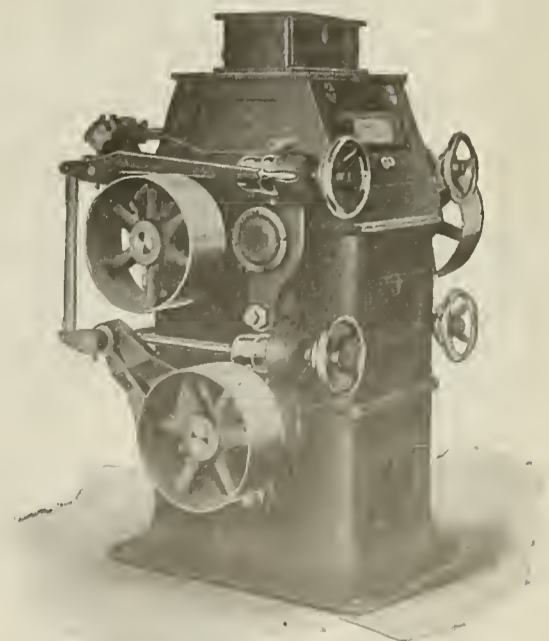


The Bison Corn and Cob Crusher

Low price of grain increases the consumption of feeds. Dairymen and stock raisers are feeding greater quantities of grain and they much prefer to have their own grain ground or buy wheat which they know is not full of noxious weed seeds which may pollute their land.

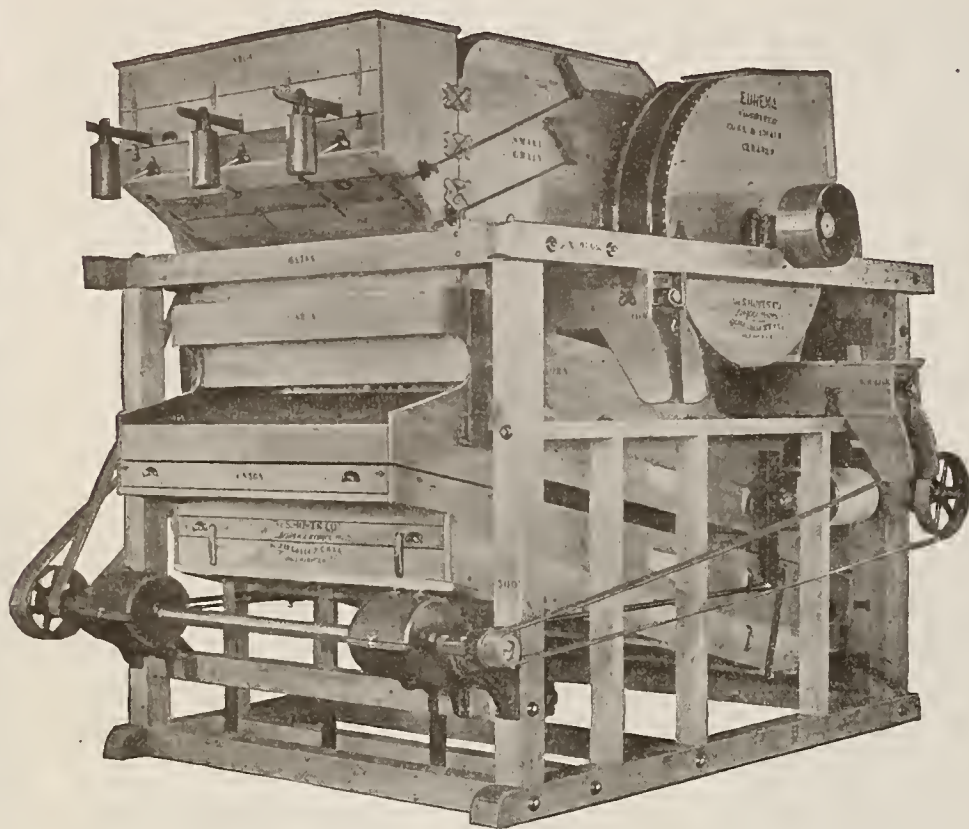
This heavy demand is being met by Elevator men and millers who have installed small equipment and grind feed at slack times in the elevator. No need to have the elevator help idle—use every moment to advantage.

A good Corn and Cob Crusher and a Two Pair High Roller Feed Mill will serve you abundantly and profitably. Get Bulletins 113-M and 116-M and our greatly reduced prices.



The Wolf Two Pair High Feed Mill
(Four Rolls)

THE WOLF COMPANY
Milk Building Headquarters
CHAMBERSBURG, PA.



THIS NEW EUREKA
for Cleaning
CORN and SMALL GRAINS
is
A Masterpiece of Efficiency!

We purposely ask you to forget any preconceived standards you may have had of efficiency, because we believe this Cleaner is going to sweep aside every precedent of desirability that you may have had of any machine designed for a like purpose.

This, our latest offering, represents the utmost in highly developed knowledge and skill.

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- W. M. Mentz, General Delivery, Sinks Grove, W. Va.
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- F. E. Dorsey, 3850 Wabash Ave., Kansas City, Mo.
- J. P. Stoffel, 1042 Hyperion Ave., Los Angeles, Calif.

The "Knickerbocker Cyclone"
Dust Collector



For Grain Cleaners
ALL STEEL



Write for Catalog

The Knickerbocker Company

Jackson, Mich.

THE WORLD'S LARGEST
ELEVATORS USE THIS BRUSH



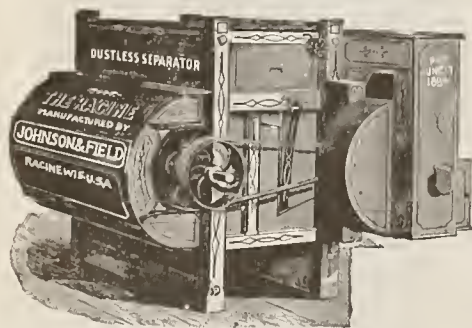
For sweeping grain cars and elevators, the STAR BRUSH has no equal. Made of stiff selected fibre, 5 inches long. Guaranteed to outwear four or five corn brooms and do cleaner and faster work. Built on hardwood block 14 inches wide and flared to an 18-inch sweep. Largest elevators in Minneapolis, Duluth, Port Arthur and Ft. William now use this brush exclusively.

Order a dozen today. If within sixty days you do not find them entirely satisfactory, send them back. We'll pay the transportation charges both ways.

Price \$16.00 per dozen, F. O. B. Minneapolis

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THE RACINE DUSTLESS SEPARATOR



YOUR PROFITS

CAN BE INCREASED IF
YOU RUN YOUR GRAIN
OVER OUR

Dustless Grain and Seed Separator
Special Screens for All Kinds
of Grain

Our Machines have probably brought higher grades to more country grain shippers than all other makes combined, saving the cost of each Machine many times in a season.

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Reliance Construction Company

Furnish Plans, Estimates and Build
COUNTRY GRAIN ELEVATORS

Our long experience as a builder of elevators insures you an up-to-date house. Write today.

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THE BOOK OF WRINKLES

NEEDED by every Elevator Operator and Miller. Contains 171 ingenious and well described and illustrated Devices for Saving Time, Labor and Money in Mills and Elevators. **PRICE, \$1.25 POSTPAID**

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John S. Metcalf Co.

Grain Elevator Engineers



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ARE YOU WORRIED

about the condition of that grain in your bins?

Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

Over 100 Elevators Equipped

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WESTERN FIRE APPLIANCE WORKS

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“We extend to you the compliments of the season with sincere wishes for a new year that will bring to you the very best of all good things.”

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COLD STORAGE PLANTS, COAL STORAGE, ETC.
SEND US YOUR INQUIRIES



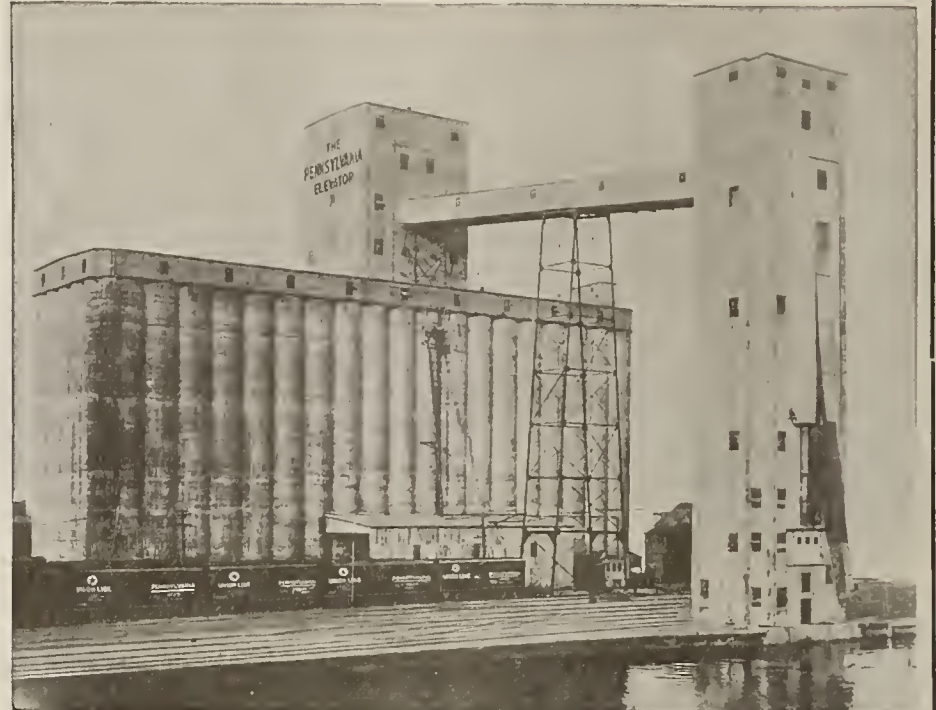
400,000-BUSHEL ELEVATOR
BUILT FOR
POSTUM CEREAL CO., BATTLE CREEK, MICH.
"THERE'S A REASON"

FOLWELL-AHLSSKOG CO.

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Grain Elevators, Flour Mills, Industrial Plants, and other
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1,250,000-bushel Concrete Workinghouse and 25,000-bushel Marine
Tower. Reinforced Concrete. Latest improvements. Write us for
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MEMPHIS, TENN., PLANT OF THE QUAKER OATS COMPANY

WE INVITE YOUR INQUIRIES



New York State Barge Canal Terminal Elevator Now Under Construction

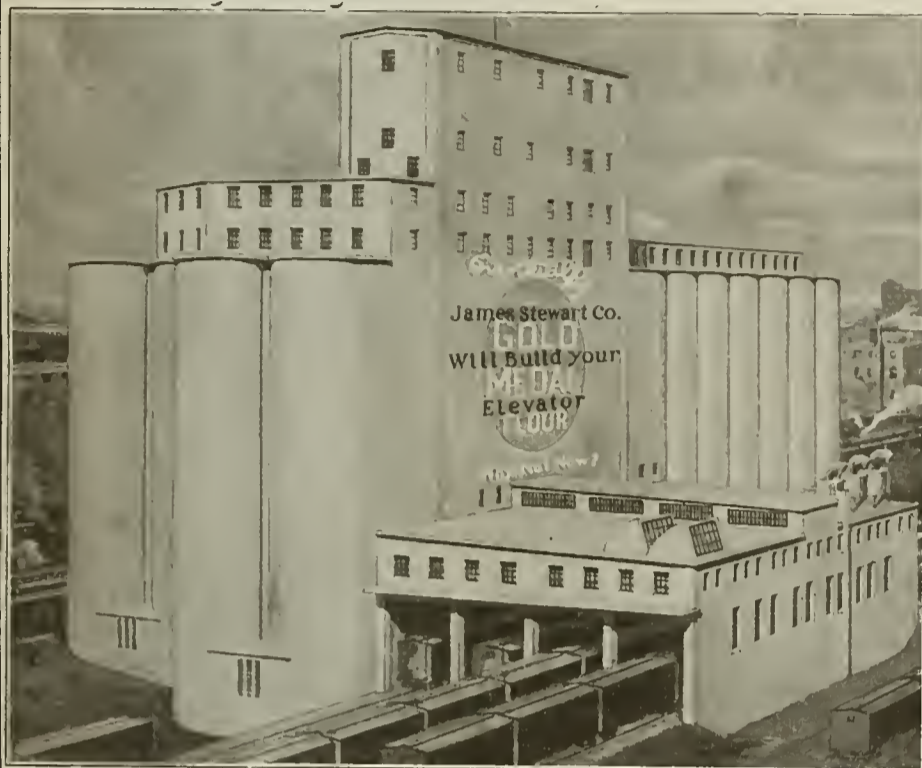
\$148,345.00 saved by the State of New York in placing contract for this structure with us.

ADVANCED METHODS—INTENSIVELY DEVELOPED ORGANIZATION—MADE THIS POSSIBLE

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**TWO MILLION BUSHEL FIRE PROOF
RECEIVING ELEVATOR**

FOR
Washburn-Crosby Company
Minneapolis, Minn.



"We have built for many of your friends.
Eventually we will build for you. Why not now?"

We Design and Build Elevators, any type of Construction, in any part of the World.

JAMES STEWART & CO., Inc.
GRAIN ELEVATOR DEPARTMENT

Twelfth Floor, Fisher Building CHICAGO, ILL.
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All-steel machines for all kinds of
CIRCULAR CONCRETE CONSTRUCTION

We contract grain storages, water
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Designers and Builders of

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Reinforced Concrete and Steel Ore Dock con-
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Minneapolis, Minn.

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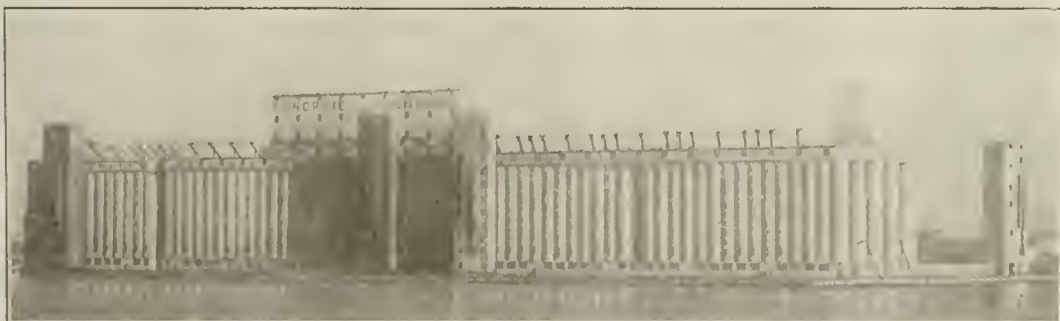
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MONARCH

Built Elevators
Assure You
Economical Design
First Class Work
Efficient Operation
and
Satisfaction
Let Us Submit
Designs and Prices

One of the Modern Houses Which Has Made a Record
for Rapid and Economical Handling
CONCRETE CENTRAL, BUFFALO, 4,500,000 Bu.



MONARCH ENGINEERING CO.

BUFFALO, N. Y.

Sifted through the Wheat Screen

Another Atlantic Coast Export Elevator
To be Equipped with

Invincible Machines

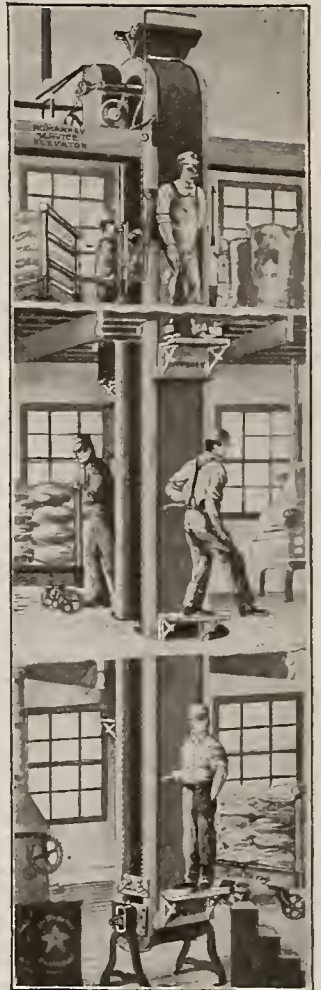
The New York State Terminal Elevator
Now being erected in
Brooklyn, N. Y.

Four large Separators and Cyclone Dust
Collectors, One Dust Packer—
All Fire Proof

Twice as much exported grain is cleaned
on INVINCIBLE Separators as on all
other makes combined

Quality Counts

The Invincible Grain Cleaner Company
Silver Creek, N. Y.



It's a Genuine Humphrey Elevator

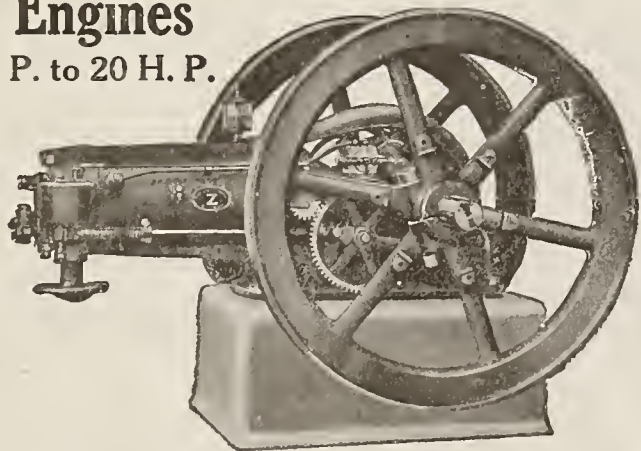
UNINTERRUPTED service
year after year as an econom-
ical freight and passenger
carrier—that's what you should ex-
pect from a belt elevator. And
that's what you get in a genuine
Humphrey.

Its Automatic Stop Device, the Electric Silent Chain Drive, and the mechanical perfection throughout mean a service that has never been equalled in its 34 years of use. If not made by the Humphrey Elevator Company it is not a genuine Humphrey.

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"Z" Engines
1 1/2 H. P. to 20 H. P.



Proven Elevator Power

You'll never worry about power after you have installed a "Z" Engine. Sizes 1 1/2 to 20 H. P. have high tension ignition—throttling governor—use kerosene as well as gasoline. "Z" engines operate at low speed—means long life. "Z" engine power is dependable.



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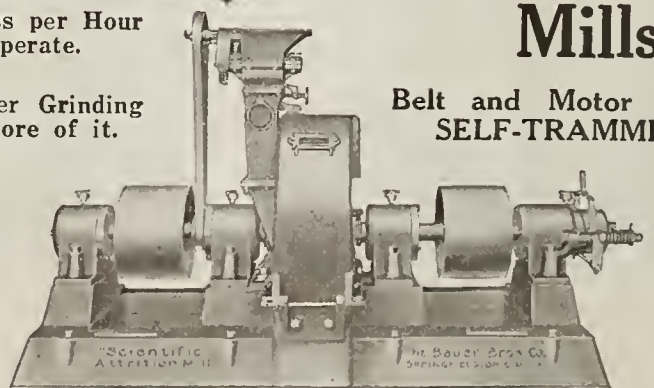
Oil Engines - Pumps - Electric Motors and Generators - Fairbanks Scales - Railway Appliances - Farm Power Machinery

The Bauer ^{BALL BEARING} Attrition Mills

Cost Less per Hour to operate.

Do Better Grinding and More of it.

Belt and Motor Driven
SELF-TRAMMING



The Bauer Belt-Driven Ball-Bearing Attrition Mill

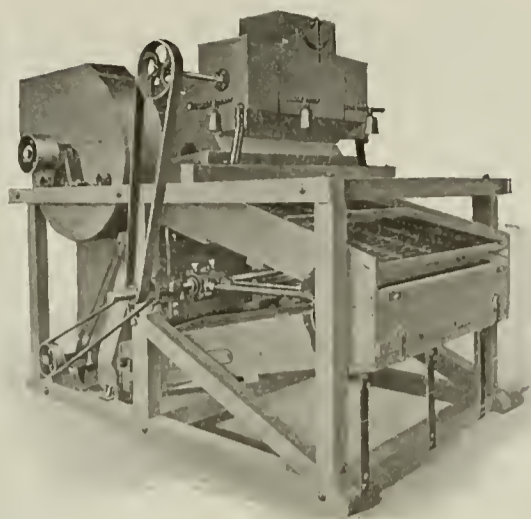
Accessible Interior. Special Plates furnished for every class of grinding. Time and Labor-Saving Devices not found on other mills.

The Bauer ^{BALL BEARING} Attrition Mills

COSTS LESS PER HOUR

THE BAUER BROS. CO.
517 Bauer Bldg.
SPRINGFIELD, OHIO

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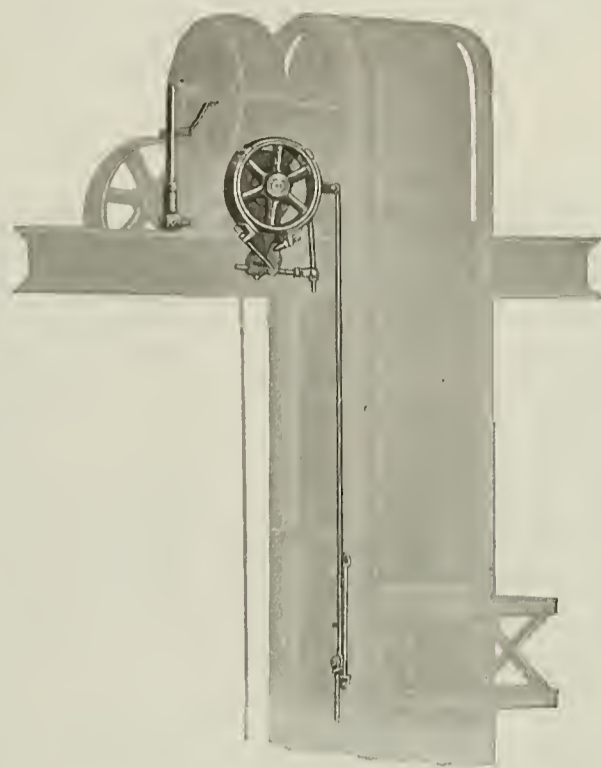
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**THE SIDNEY DOUBLE SHOE
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CLEANS CORN, WHEAT AND OATS
WITHOUT CHANGE OF SCREEN**

Investigate it—then buy. Descriptive circulars
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**THE PHILIP SMITH MFG. CO.
SIDNEY, OHIO**

*Manufacturers of the SIDNEY LINE, which includes all the
machinery necessary to equip the elevator from pit to cupola.*



**N. & M. CO. SERVICE ELEVATOR
WITH
AUTOMATIC
SAFETY DEVICE**

WITH the upper terminal automatic stop in operation there is no danger of being carried overhead and injured. The weight of the passenger after the top floor is reached automatically throws a lever, shutting off the power and applying the brake, thereby locking the belt and steps against movement in either direction.

The automatic stop mechanism furnished with the Nordyke & Marmon Company service elevator adds the vital feature of safety to the elevator's other excellent qualities of reliability and utility.

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NORDYKE & MARMON COMPANY

Established 1851

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AMERICA'S LEADING MILL BUILDERS

**Preston
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Vitrified Tile Bins

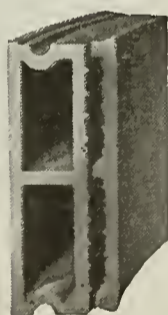
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Grain bins constructed of vitrified tile are a permanent saving because they afford the fullest measure of protection and because "first cost is the only cost."

Preston-Lansing "ship-lap" block construction will endure for generations and retain its fine appearance. Not only is space conserved but your grain is guarded against moisture, rot, rust, rats, fire, shrinkage, sweating and extreme temperatures.

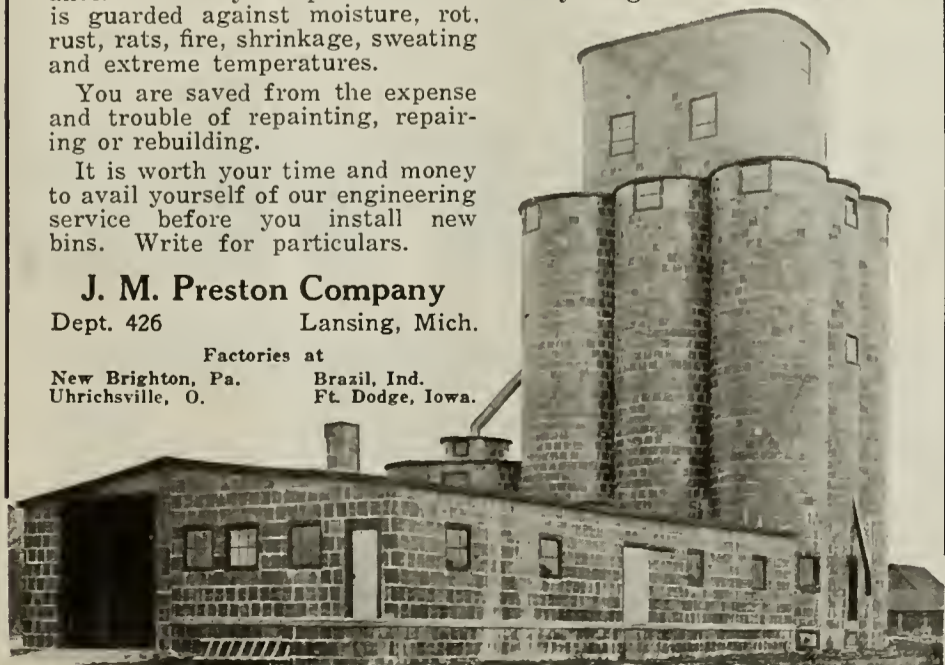
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CAREFUL INSPECTION
before closing at night
WOULD HAVE PREVENTED THIS FIRE



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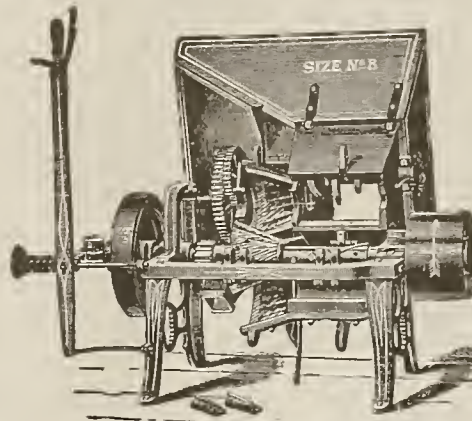
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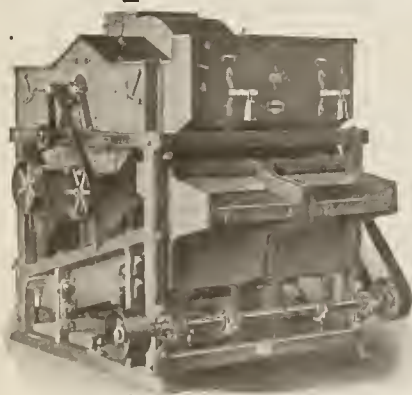
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Sold with or without Sacking Elevator.

Mill opens like this in six minutes.

The N. P. Bowsher Co., South Bend, Ind.

For unlimited profits and for greatest efficiency in your mill or elevator, install

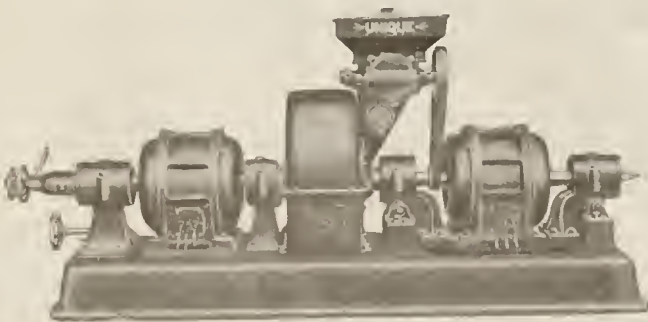
Unique Milling Machinery



RECEIVING SEPARATOR

This machine will save its cost in a short time by removing sticks, straws, stones, fine seeds, sand, etc., from the grain as it is brought to your plant, thereby saving the price you would be paying for good, clean grain.

All modern improvements and conveniences are incorporated in this UNIQUE Machine and it will operate efficiently at all times. Operator can conveniently change sieves to suit the product being received.



Motor Driven. Belt Driven if Preferred.

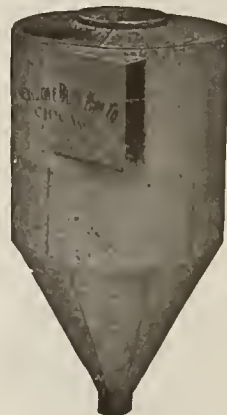
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Cyclone Dust Collector

Do not delay longer but write today for full particulars on the installation of our system.

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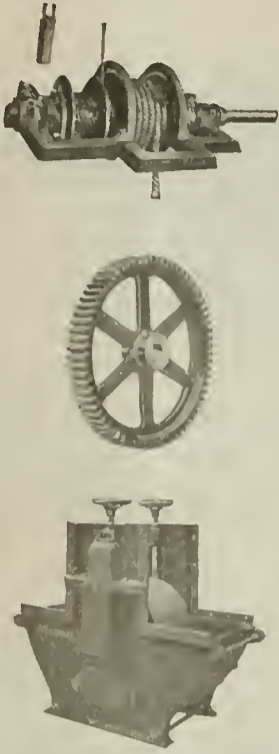
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Our Specialties—Fancy Alfalfa and Soy Beans



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Dust Collectors alone do not prevent explosions in elevators, but Day Dust Collecting Systems do when properly installed.

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THE DAY COMPANY, Minneapolis, Minn.

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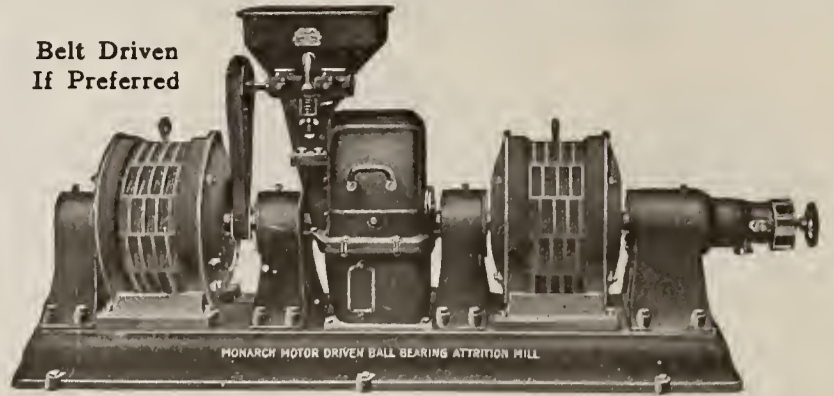
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IF ABILITY to produce a product of uniform fineness, if low cost for power and lubrication, if construction that withstands the strain of severe service, and if practical freedom from vibration are the points which you consider of prime importance in a feed grinder, your method of measuring value applies exactly to the

MONARCH BALL BEARING ATTRITION MILL

Place this mill in your plant and you will become convinced in less than a month that you have made a wise and profitable investment. You will enjoy the feeling of confidence and satisfaction that comes with *knowing* you have bought a mill of superior character.

Tell us how much daily output you are interested in, and we will then recommend the size and type of mill to insure best results.

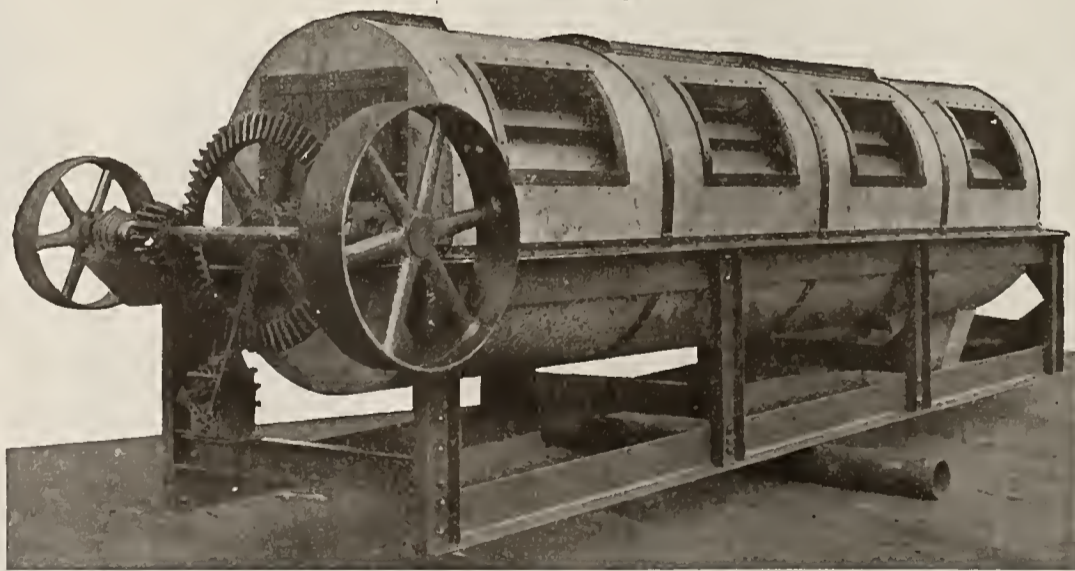
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The Monarch Mill Builders

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Ball Bearing



We have spared neither time nor expense to make the Ellis Rotary Drier a machine which is by all means the best on the market, bar none. A very complete description is given in our catalog 28, sent on request.

The Ellis Drier Co., Roosevelt Road & Talman Ave., Chicago, U. S. A.

New York State Engineer Selects Morse Drives

RIP VAN WINKLE slept for 20 years, but when he finally woke up he was a reformed character. The port of New York was asleep for over two decades, but it is awake now, and apparently refreshed and invigorated. Before its slumbers were disturbed New York had probably the worst facilities of any large port in the world. Within the next five years, if its plans are carried out, it will have the best.

We are not told what waked Rip out of his nap, but in the case of New York it was a first class commercial jar. Business which had been accepted as a matter of course and was looked upon as a Divine right, was getting away. Philadelphia, Norfolk, Baltimore and the Gulf Ports had installed modern facilities and were advertising them to good effect. This was particularly noticeable in grain shipments. The rebuilt State Barge Canal was not producing the business which had

necessitates economic and continuous operation. The house has no rail connections. In this it is unique for a grain terminal of this size. As all grain is received from and dispatched to vessels, particular care was exhibited in the selection of handling equipment and power transmission machinery. Car demurrage, as every grain dealer knows, can run into a lot of money. This is magnified many times when he is dealing with boats, for a delay of a short period in loading or unloading might easily wipe out all hope of profit on a transaction. This demurrage may not fall on the elevator operators, but as they are in competition with numerous other ports, unless they can handle cargoes expeditiously, exporters will not use the house or the port. The specifications, therefore, throughout the plant call for the very best of conveying systems and Morse Silent Chain Drives throughout for power transmission from

speed and 36-inch centers. One distributing belt in the main building has a 30-horsepower drive and another a 25-horsepower, reducing from 570 to 125 and to 80 revolutions respectively, and having centers of 60 inches and 36 inches.

The ground area covered by the elevator is 70 by 429 feet. The storage facilities include 54 circular bins 20 feet in diameter and 95 feet high, and other bins of smaller size. They will have a capacity of from 4,200 to 26,000 bushels each, allowing considerable flexibility in keeping separate various parcels of grain. Barges 150 feet long can be unloaded at each marine leg without interference, and cargoes of grain or seed arriving in large vessels from abroad can be unloaded with two legs at one time. A complete equipment of Invincible Cleaners, Fairbanks-Morse Scales and a Morris Grain Drier will be installed so that every department can care for its operations with the



THE NEW YORK STATE ELEVATOR NOW UNDER CONSTRUCTION IN GOWANUS BAY, NEW YORK HARBOR

been expected of it. There were a number of reasons for this, connected with the operation of the canal, but the principal reason for disappointment rested in the fact that the port of New York had no facilities for handling barge borne grain economically and the cost of transfer at tidewater more than made up for the cheaper water rate.

For some time the state Department of Engineering, of which Frank M. Williams is head, has clearly seen the necessity for modern grain handling facilities at both ends of the canal if it were to prove successful. There were numerous attempts to interest private capital in the enterprise, but this failing the state of New York undertook to build such terminals with the result that the elevator at Gowanus Bay at Brooklyn, built by the Fegles Construction Company of Minneapolis, is in a fair way toward completion and the plans and specifications for another house at Oswego on Lake Ontario are completed.

Before undertaking the 2,000,000-bushel terminal elevator at Gowanus Bay, Mr. Williams made an intensive study of present requirements and future needs. Every detail of the house was carefully planned and the specifications for equipment were exacting, as the success of the venture

the electric motors, the idea being that when grain movement was desired there should be no failure nor delay in carrying it out.

The elevator has five main lofter legs. These are equipped with a 150-horsepower Morse Drive each, operating on 63-inch centers and speed reduction of 575 to 100 revolutions per minute. The three lofter legs in the gallery towers have each a 100-horsepower drive on 96 $\frac{3}{8}$ -inch centers with the same speed reduction as for the longer legs. The two marine legs have each a 75-horsepower Morse Drive, 74-inch centers and 570 to 90 revolutions speed reduction. The gallery conveyors for conveying grain to the boat spouts (only a small part of these extensive galleries are shown in the illustration) have six drives of 50-horsepower, 570 to 125 speed reductions, and centers varying from 38 to 90-inch centers; and two 30-horsepower drives, 100-inch centers and same speed reduction. The marine lofter legs and shovels have a 40-horsepower drive each, 690 to 208

utmost dispatch and exactitude. Grain can be put into perfect condition for export and the house can supply quality as well as quantity.

The handling capacity of the house will be 45,000 bushels per hour receiving from barges, and a shipping capacity of 80,000 bushels per hour. A rated capacity, however, based upon belt size and speeds, means nothing unless that equipment can be depended upon to deliver when called on. David Harum got rid of his balky horse, and the old deacon found that the animal was not entirely satisfactory in an emergency, in that case, you remember, a hard rain storm. A balky power transmission has far more serious consequences than getting wet. With canal barges waiting to unload and an ocean steamship docked for a cargo of grain, a failure of power transmission might easily cost the elevator operator thousands of dollars. That is why Chief Engineer Williams specified Morse Silent Chain Drives for use throughout the house. That is why the fore-

most engineers of the country are turning to this sort of equipment when economy in operating costs is the main consideration. That is why Morse Drives are found in many of our finest elevators. —Advertisement.

ENGINEERS PLANNING POWER TRANSMISSIONS

Secure Data and Estimates of "MORSE" DRIVES. SAVE Construction, Space, Light, Fuel. Producing More With Less.

MORSE CHAIN CO.

ITHACA, N. Y.

Engineering Service, Assistance, Bulletins

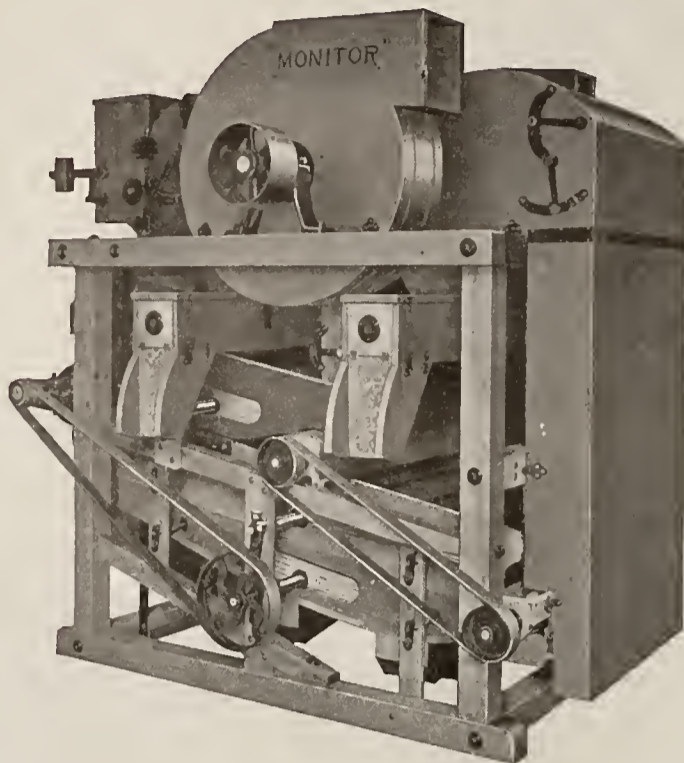
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Why the Monitor Cracked Corn Grader?

IT IS DUSTLESS

The stock passes from the feed hopper to an air separation, where the dust is taken out.

IT SAVES EVERYTHING

Heavy dust, loose hulls, everything that has any value for feed or elsewhere is delivered separately.

IT REMOVES UNCRACKED KERNELS

There are always some uncracked kernels in the stock. The machine separates and delivers these separately.

IT MAKES THREE BEAUTIFUL GRADES

Large, medium and fine cracked, each free from dust, hulls and accurate to size. With them, you can meet any demand.

ALL FINE MEAL BY ITSELF

The fine meal is taken out separately and delivered by itself. You are bound to make some of this in cracking. The MONITOR saves it for you.

PERFECT ASPIRATIONS

Each grade, after it is sized, passes through an independent full width aspiration, an essential feature.

SCREENS AUTOMATICALLY CLEANED

Each grading screen has its automatic brush cleaner. Without this, you cannot make perfect grades.

TEN SEPARATIONS

In once through, all the above separations are made, totaling ten separate and distinct operations.

Canadian Plant,
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A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.

THE AMERICAN

ELEVATOR AND

GRAIN TRADE



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

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Established in 1882.

VOL. XL

CHICAGO, ILLINOIS, DECEMBER 15, 1921

NO. 6

New Plant to Handle Iowa Grain

Iowa Corn Products Company Completes First Unit of Its Elevator at Des Moines, the Initial Step of Comprehensive Storage and Milling Operations

RURAL Iowa is said to be in a bad way financially. It is no fault of the state, for as a producer the commonwealth is without a peer. Nor is it on account of farming methods, and not altogether are the markets to blame. Following the days of extreme prosperity at the close of the war Iowa was cursed with dreams of high finance. Millions of dollars of hard earned money went into wild-cat oil wells and other promotional enterprises that gave benefits only to the smooth-tongued promoters; land values soared to absurd heights and even seasoned farm operators were caught in the land craze, with the result that many farms have an interest charge that can never be realized. And then the bottom fell out.

These were the conditions in the state when a small group of men gathered together in Des Moines to consider the general situation in respect to a certain plan of their own. They knew that farmers, grain dealers, millers, and everyone concerned at all with the growing and marketing of grain had some hard times ahead, but they also knew that every possible facility that would in any way cheapen the cost of grain handling would be a present blessing and would make a distinct place for itself against the return of better times. They were all imbued with the belief that milling can best be done as near as possible to the source of grain supply, and that eventually milling operations on all grains would come again into the prosperity it once enjoyed.

The whole situation, past, present, and future, was thoroughly canvassed, with the result that the Iowa Corn Products Company was organized with O. J. Meredith, president; A. N. Heggen, vice-president; and T. C. Cessna, chairman of the Board of Directors. A comprehensive plan of operations for the future was outlined, but the first step definitely undertaken was the building of a large terminal elevator at Des Moines. Even this was kept within conservative bounds and plans were drawn for a house of 150,000 bushels initial capacity, but with capability of great expansion. The contract for the elevator was let to the Folwell-Ahlskog Company of Chicago and the new building was

completed ready for operation about September 1 of this year.

Des Moines has rail facilities serving every part of the state and the capital is the natural gateway for a large proportion of the grain from the western half. New facilities were badly needed and undoubtedly will be appreciated and patronized. The city is well located for cereal mills of all kinds and yet its possibilities have been ne-

at some terminals make a large hole in the returns which the shipper receives for his car. The inspection and weighing fees and the charges for storage and transfer are fixed by the Des Moines Board of Trade, of which the company is a member, but drying, cleaning, mixing and shelling expense is kept to the minimum consistent with conservative business policy.

At the present time the house is only large enough to take care of rapidly turning grain, that is grain that is shipped out within a reasonable interval of time, but next spring the company will add a large battery of storage tanks and it will then be in a position to store grain in considerable quantities and for long periods if desired.

The completed unit consists of a working house 48x42 feet on the ground plan and 176 feet 5 inches high above the tracks; two cylindrical tanks, 23 feet inside diameter and 90 feet high; a track shed; wagon dump shed; and a drier. The entire plant is of reinforced concrete construction and is planned for a working capacity far in excess of its present storage facilities.

The track shed is 40 feet 6 inches wide and houses two tracks, cars being handled with a two-drum car puller driven by a 75-horsepower motor. Each track is equipped with a 2,000-bushel receiving hopper which discharge onto a 36-inch belt conveyor leading to the two receiving legs which have a capacity of 12,000 bushels per hour each. This belt conveyor also serves the small grain wagon dump hopper.

The wagon dump shed is 13 feet 3½ inches wide and is equipped with a Globe Truck

and Wagon Dump with separate hoppers for ear corn and small grain. The small grain goes to the receiving conveyor while the ear corn discharges to a chain conveyor and feeder by which it is conveyed to a 1,000-bushel per hour warehouse corn sheller. Arrangements are also made to handle ear corn through the car dumps, discharging to the sheller in a similar manner.

The installment of a truck dump was considered a matter of economy, for even if there were no immediate use for the larger dump the time is coming when improved road conditions will make

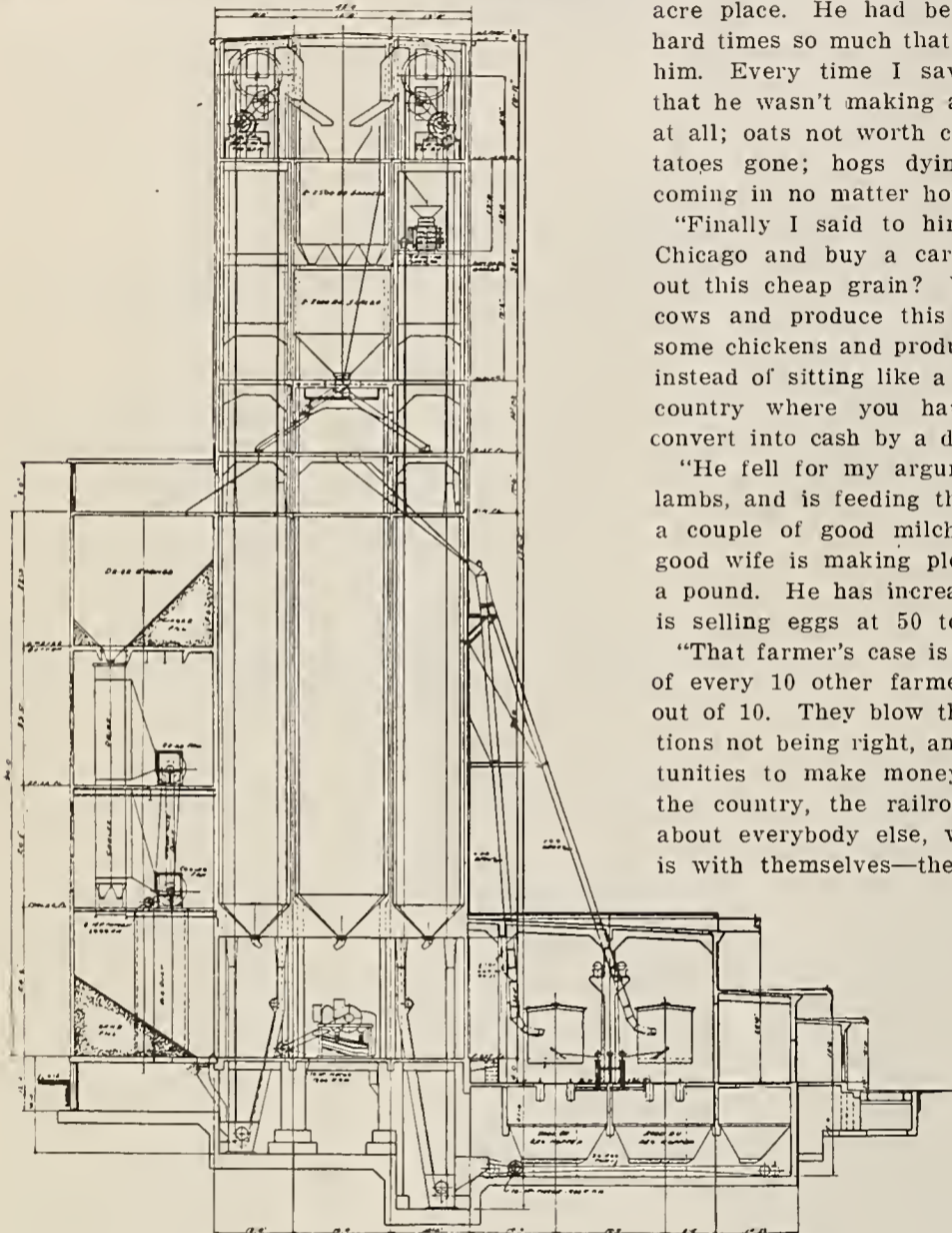


DES MOINES PLANT OF THE IOWA CORN PRODUCTS COMPANY

glected to a large extent. When the times are more propitious the Iowa Corn Products Company plans to develop a corn products plant and other grain milling industries, but for the present it will confine its activities to the elevator alone. But all of the energy and progressiveness of the concern will be expended in making the new plant a real service. It is located on the Des Moines Union Railway which enables it to take advantage of free switching service to all the carriers entering the city. This in itself is no small advantage, for the incidental expenses

it the exception rather than the rule for grain to be delivered from the farm to the elevator by wagon, except on very short hauls. Even now the drift toward motor trucks is so marked that country elevators by the hundred have been forced to install dumps designed to accommodate them. It would have been only a matter of a short time at best before a truck dump would have had to be installed, so the course of wisdom was followed by installing it at the start.

After the grain is received and elevated, it goes to a 2,000-bushel hopper scale, one of which is installed for each receiving leg. It then is sent to



SIDE ELEVATION OF THE CORN PRODUCTS COMPANY'S ELEVATOR

one of the two heavy duty cleaners, to the drier, to storage, or to the shipping bin. From the cleaners the grain is re-elevated on a 6,000-bushel leg and distributed at the head of the house.

The Randolph Grain Drier is in one of the storage bins adjoining the working house. The upper quarter of the bin is the drier hopper; next below is the drier; the third quarter is taken up with the cooler, while below that is the drier dump which discharges to an elevator boat.

The shipping bin is just below the scale floor and empties to either of the two loading spouts, one serving each track.

The whole plant is operated electrically. The motors range in size from the small fan motors of the drier up to 100 horsepower on the shaft which operates one lofter and the cleaner leg.

Every effort has been made to insure rapid, and accurate operation, and the facilities offered recommend the house to every shipper. After two months of service the company has reason to feel every encouragement and is going ahead with its plans of development.

AMENDMENT TO GRAIN STANDARDS ACT REGULATIONS

The Secretary of Agriculture has signed an amendment to the regulations under the United States Grain Standards Act, reducing the minimum fee in an appeal or dispute on bulk or sacked

grain in carload lots from \$3 to \$2 per car, and establishing a flat rate of 50 cents per 1,000 bushels on bulk or sacked grain other than in carload lots. This latter rate is applicable to grain loaded into vessels. The amendment is now in effect.

THE WAY OUT

"It is a mystery to me," said a prominent Ohio grain dealer a couple of weeks ago, "why the farmers, instead of bemoaning their fate, do not take advantage of present conditions.

"I know a farmer near me who has a good 80-acre place. He had been talking and preaching hard times so much that I got out of patience with him. Every time I saw him he would tell me that he wasn't making any money; corn no price at all; oats not worth cutting; hay the same; potatoes gone; hogs dying of cholera; no money coming in no matter how hard he worked.

"Finally I said to him: 'Why don't you go to Chicago and buy a car of lambs and feed them out this cheap grain? Why don't you buy a few cows and produce this high priced butter? Get some chickens and produce some high priced eggs, instead of sitting like a bump on a log out in the country where you have plenty of material to convert into cash by a direct road.'

"He fell for my argument and bought a car of lambs, and is feeding them now. He also bought a couple of good milch cows at a sale and his good wife is making plenty of butter at 55 cents a pound. He has increased his chicken flock and is selling eggs at 50 to 55 cents a dozen.

"That farmer's case is no different than nine out of every 10 other farmers, or nine business men out of 10. They blow their heads off about conditions not being right, and sit idly and allow opportunities to make money slip by. They condemn the country, the railroads, the banks, and just about everybody else, when the principal trouble is with themselves—they are blind to their pres-

ent opportunities to convert raw materials into profitable products.

"If a lot of these fellows would stop their growling and condemning the men who do work and use some plain horse sense and get busy, they would soon turn this restless, unemployed world into a business workshop."

BURNING CORN

The municipal water and light plant at Windom, Minn., is using corn for fuel, and the Board of Supervisors of Pocahontas County, Iowa, has ordered the county auditor to buy corn for fuel for use in the court house, county home and insane infirmary. In addition many farms are burning corn.

According to tests at the Iowa and Minnesota Experiment Stations, dry ear corn contains about half or a little more than half as many heat units, per pound or per ton, as does coal. That is to say, it requires a little less than two tons of corn to equal one ton of ordinary coal. At 70 pounds to the bushel, there would be 57 bushels in two tons of ear corn, and probably 50 bushels would equal a ton of coal. It is easy to figure out the economy of using corn on that basis, by comparing the farm price of 50 bushels of corn with the price of a ton of coal, and then figure, to the credit of the corn fuel, the cost of hauling the corn to market and hauling the coal back.

Because of the variation in quality of both corn

and coal it is difficult to make scientific experiments the results of which are applicable everywhere, but, speaking generally, the fuel value of corn compared with coal are about as follows:

Corn at 10 cents a bushel equals coal at \$5.00 per ton.

Corn at 13 cents a bushel equals coal at \$6.50 per ton.

Corn at 15 cents a bushel equals coal at \$7.50 per ton.

Corn at 17 cents a bushel equals coal at \$8.50 per ton.

Corn at 20 cents a bushel equals coal at \$10.00 per ton.

Corn at 23 cents a bushel equals coal at \$11.50 per ton.

Corn at 25 cents a bushel equals coal at \$12.50 per ton.

Corn at 28 cents a bushel equals coal at \$14.00 per ton.

Corn at 30 cents a bushel equals coal at \$15.00 per ton.

Corn at 32 cents a bushel equals coal at \$16.00 per ton.

In spite of the fact that an apparent economy lies in burning corn, its general use as a fuel will not appear this year except where corn is moldy. Stoking a fire is about the best use to which moldy corn can be put. But back in the consciousness of the average farmer is the belief that the old corn crib has more speculative value than is apparent just now. And corn in a well-built crib can be safely stored against the time when demand makes it worth while to haul to the elevator.

SUMMARY OF FOREIGN CROP PROSPECTS

The fall-sown crops of the Northern Hemisphere are generally entering the winter in a fair to good condition, with the exception of some areas where drought has interfered with seeding and germination, says the Bureau of Markets and Crop Estimates, United States Department of Agriculture. Recent rains have benefited the new crops in Germany and Austria and the condition is up to the average, although the long drought may have reduced the acreage somewhat. Seeding has been greatly hindered by drought in France, Hungary, and Roumania. Recent favorable rains are reported from Italy. Seeding made good progress throughout Great Britain, and good stands are reported for early sown fields. Moisture conditions have been favorable in northern Africa, and preparation of the land for fall seeding made excellent progress.

The prospect for the wheat harvest in British India continues good, and the outlook for next spring's crop in general is favorable in most districts. Fall-sown crops have generally entered the winter in good condition in Canada. The condition of the winter wheat crop in the United States continues favorable throughout the North Central States, but the continued drought is causing much damage throughout the lower plains region, where some fields are dying and late seeding are failing to germinate. Rain is also generally needed in the Pacific Northwestern States. The condition of the winter rye crop in the United States is generally good.

The crop news from Argentina continues to be favorable, and it is now conceded that the early reports of drought damage were somewhat exaggerated. The moisture supply is now abundant, and the present outlook indicates a good crop will be harvested. Owing to the dry, unfavorable conditions at seeding time the acreage shows a reduction of slightly over 1,000,000 acres compared with last year, the acreage for 1921-22 being estimated at 13,927,000 acres compared with 14,957,000 acres in 1920-21. The wheat harvest is about to begin in the early districts of Australia, and the prospects are generally good. The present outlook indicates that the yield will be about equal to that of last year.

The final returns of the cereal crops of the Northern Hemisphere do not vary much from those previously given. The total wheat production for

the 29 leading wheat-growing countries of the world (excluding Russia), according to the latest revised estimates, was 2,890,445,000 bushels, compared with 2,661,971,000 bushels in 1920, showing an increase of 228,474,000 bushels. The total production of rye for the 17 leading countries for which figures are available is 730,739,000 bushels compared with 553,750,000 in 1920, showing the very considerable increase of 171,989,000 bushels. The bulk of this increased production occurred in the European countries.

The yield of wheat in North Africa also shows considerable gain, while the yield for North America does not differ much from that of last year. The only large producing country which reported a poor yield for 1921 is that of British India, where the yield shows a decrease of 33 per cent over 1920. The only cereal crop of the Northern Hemisphere which shows a decided decrease in production is that of oats, where the estimates for 1921 only amount to 85 per cent of 1920.

The rainfall has been very variable throughout China and, although no actual crop estimates are given, many reports of poor yields are received. The crops throughout Manchuria are reported to be from good to excellent, with the exception of the crops of soy beans and wheat in North Manchuria, which are poor. The crops of wheat in Central China, Shantung, and Chihli are all below normal, and the rice crop in South China is poor. A second period of drought is now reported in the Kwantung Province, and the second rice crop is already seriously injured.

WORLD PRODUCTION OF WHEAT

NORTHERN HEMISPHERE.	Average (a)		
	1909-1913.	1920.	1921.
	1,000 Bushels.	1,000 Bushels.	1,000 Bushels.
United States.....*	686,691	787,128	740,655
Canada.....*	197,119	263,189	329,835
Mexico.....*	9,995	(b)14,951	.....
Guatemala.....*	.....	312	.....
Austria.....(c)	61,075	5,424	.....
Belgium.....*	14,583	10,275	11,523
Bulgaria.....(c)	43,725	39,705	42,510
Czecho-Slovakia.....*	.....	26,362	40,673
Denmark.....*	4,916	6,944	.....
Finland.....*	129	272	276
France.....(c)	317,254	236,929	322,767
Germany.....(c)	152,119	82,858	97,864
Greece.....(c)	7,200	12,194	11,170
Hungary.....(d)	52,174	38,294	44,699
Italy.....*	183,260	141,337	188,126
Jugo-Slavia.....*	.....	42,823	.....
Luxemburg.....*	615	449	.....
Netherlands.....*	4,976	6,677	7,523
Norway.....*	307	999	.....
Portugal.....*	8,683	7,140	.....
Rumania.....(e)	108,217	70,349	97,186
Russia proper (Euro- pean).....(c)	522,794	.....	.....
Poland.....(c)	23,343	22,741	34,836
Serbia.....(c)	14,778	.....	.....
Spain.....*	130,446	138,610	143,205
Sweden.....*	7,907	10,545	112,566
Switzerland.....*	3,314	3,584	3,574
United Kingdom.....*	61,481	56,878	(f)69,784
British India.....*	350,736	377,888	250,469
Cyprus.....*	2,286	(b) 3,000	.....
Japan.....*	25,274	28,288	27,874
Formosa.....*	173	.....	.....
Korea.....*	4,871	.....	.....
Persia.....*	16,000	.....	.....
Russia (Asiatic).....*	84,139	.....	.....
Turkey (Asiatic).....*	35,000	.....	.....
Algeria.....*	33,071	8,562	33,142
Egypt.....*	34,000	31,708	37,012
Tunis.....*	6,063	5,225	11,758
Morocco (French).....*	.....	21,999	20,040
Total.....	2,381,601	2,325,558	2,448,570

SOUTHERN HEMISPHERE.	Average (a)		
	1908-9 to 1912-13.	1919-20.	1920-21.
Argentina.....*	157,347	214,140	184,268
Chile.....*	20,316	21,591	25,180
Brazil.....*	.....	.....	4,409
Uruguay.....*	7,314	5,948	10,321
Peru.....*	.....	.....	2,646
Union of South Africa.....*	4,620	5,129	8,113
Australia.....*	81,943	45,884	146,606
New Zealand.....*	7,885	4,560	6,674
Total.....	282,425	297,252	373,862

Total of countries marked (*)..... 2,664,026 2,622,810 2,822,432

(a) Five-year average, except in a few cases where five-year statistics were unavailable. (b) Unofficial. (c) Old boundaries. (d) Unofficial estimate for new boundaries. (e) Former Kingdom and Bessarabia. (f) England and Wales only.

THE contract for the construction of 36 elevators in South Africa, bids for which were advertised in these pages some months ago, has been awarded to a Canadian engineering firm. The house at Durban will have a capacity of 42,000 tons; the Capetown elevator, 30,000 tons; and the country houses smaller. All the elevators will be built along lines that have proved successful in this country, and the improvement will mean much to the grain shipper of South Africa.

A Top-Notch House in Michigan

Plant of the Hastings Cooperative Elevator Association Well Designed and Equipped to Care for the Extensive Business Offered

MICHIGAN grain growers and shippers have occasion to look forward with optimism and courage. The proposed export elevator at Detroit and the St. Lawrence waterway will give Michigan grain an export market with a minimum of rail carriage. This should reflect good prices at the shipping station and increased competition for the grain. Incidentally Michigan wheat, rye, buckwheat and oats are of high quality and much in demand by millers who know values.

Anticipating these conditions, the Hastings Cooperative Elevator Association has just completed

they do for it tends toward profiteering on the one hand or inefficiency on the other. Competition is the best, in fact the only real spur toward economical operation. The house with a monopoly is immediately under suspicion and needs careful watching, not only by patrons, but by stockholders. Most all of the abuses in the grain trade in the past have arisen through just such conditions. When the Hastings Association was organized the project was carefully analyzed and the above factors given thorough consideration. The group of farmers was not carried away by dreams or visionary get-rich-quick schemes. Hastings is a town of over 5,000 inhabitants with a mill and two or three elevators which do a good conservative business. The Association was formed not because of local marketing abuses, but because it was felt that there was money in it. But it was realized from the start that, if the Association were to be successful, it must prove its usefulness on a strictly competitive basis. Its utilities must be designed to operate at a maximum of economy, and without a bit of unnecessary overhead expense.

Mr. Moninger was engaged, therefore, to design a strictly fireproof, modern plant that would compete with present houses in Hastings, and take care of the future as well. The house was completed and operations started about August 1 of this year.

The elevator is built entirely of Preston-Lansing Vitrified Tile and concrete. It has a storage capacity of 18,000 bushels and a handling capacity of 500 to 800 bushels per hour. The storage is divided up into 10 bins of various sizes, four hav-



DRIVEWAY AND OFFICE OF HASTINGS PLANT

a new elevator, built and designed by Charles E. Moninger of Lansing, which is one of the best planned and equipped of its size in the entire state. The Hastings Association was organized in June of 1920. At that time the co-operative



NEW HASTINGS (MICH.) CO-OPERATIVE ELEVATOR

movement was at its height in Michigan and enthusiasm was in the air. The failure of the North Dakota experiment was not so apparent as it is at present and Michigan seemed more ready to go to extreme lengths in state enterprises than any other state. Under the stress of the propaganda for co-operative enterprises there were some associations formed that were ill-advised, and will undoubtedly prove to be a drag rather than an aid to the community. Farmers using a shipping station have to pay for the facilities at their disposal. If the station is over-supplied the returns from each house are bound to be reduced, for no house, co-operative or independent, can hope to get all the business. It is not good for them if

ing a capacity of 3,000 bushels each and the other six being 500 to 1,500 bushels each. The entire structure is 45 feet wide at front, and 30 feet at rear, with a total length of 110 feet.

Grain is handled in sack at present, although provision is made for installing a wagon dump in future if desired. The main elevator is the latest non-clog boot and steel leg, with steel head and distributor, and all spouting is of steel. The spouting is so arranged that grain may pass direct to bins, or through cleaner and through hopper scales. All grain received locally is first cleaned and the cleaned grain weighed through a hopper scale.

Out-going grain can pass over recleaner into hopper scale or direct into main lift, and through a

six-bushel automatic scale in the top of building, thence by gravity to car. No manual labor is required to handle grain after the original dumping into the receiving pits.

The elevator is equipped with a 500-bushel grain cleaner; a 100-bushel Triumph Corn Sheller; a 3,000-pound cob crusher; a 5,000 to 7,000 pound Robinson Attrition Mill of the direct motor driven type, with 26-inch burrs and two 25 horsepower motors; and a seed cleaner.

A 15-ton truck scale is located in the driveway and a 300-bushel hopper scale and 1,000-pound floor scale, also 1,000-pound truck scale inside, all of the Buffalo Scale Company make.

Spacious offices are found in the front of building, consisting of a bookkeeper's office, manager's office, and general customers' vestibule, while opposite these is found a large comfortable directors' room, with toilets in connection, this room being designed for use as a ladies waiting room when not in use for meetings of farmers committees, and is open to be used as a general farmers center for any of the many varied activities and farmer organizations. All offices are lighted with latest designed reflected lights, and heated by a warm air furnace. The effort has been made to provide facilities for making the plant a general farmers' headquarters in town.

The Hastings Association is handling all kinds of grains, wool, potatoes and other products of their members and selling feeds, coal, salt, butter, produce, etc. Business has started off well and all prospects are for a prosperous future, their membership now standing at about 400.

SIDE LINES

BY TRAVELER

I called upon an elevator man recently, and his remark, in response to my greeting, was a wail of complaint. I had put the usual question: "How's business?"

"Business?" he said, "Why, there isn't any. I get so crazy sitting here doing nothing, that I wish I could close the elevator up. Why, there's no grain moving at all."

This was quite true, as in that particular territory the wheat and oats crops were very short, while the corn crop was a complete failure. However, one should not depend entirely upon the grain business, so I said to him: "You handle coal, don't you?"

"No, I haven't any place to keep coal here, and besides there's other dealers in town," he replied.

"Well, you handle flour and feed, of course," I pursued.

"No, I don't sell anything here but some screenings and corn and oats."

"Well," I says, "no wonder you're blue. You might, at least, be doing something to take your mind off your troubles. Why, Smith—over at Rushtown—was telling me how many cars of potatoes he's handled this year, and he was just selling the last of a car load of apples he had had shipped in from New York State. Most of them were taken right off the car, and the rest he delivered at a slightly higher price.

"Of course," I continued, "he keeps a truck; but it easily pays its way, as he not only has a good coal trade, but he also supplies three bakeries with flour, selling them as high as 100 barrels at a time."

The mention of the truck touched a tender spot, for he quickly admitted that he had had occasion to use a truck several times, but hesitated to invest in one for fear of too much expense.

I left him to dream over what I had said, and it seems my little talk must have left quite an impression upon him, for I have just received a letter from him giving me a nice order for coal and telling me that his coal sheds are nearly completed. He also said that he had put in a stock of flour, and was now handling his second car of potatoes. He hopes to be able to show me his new truck when I call again.

As a matter of fact, this man might have gone on bewailing his ill-luck in the grain business until next harvest, and he would only be adding all the

time to the great army of pessimists who are helping to dethrone business. Instead, he has gotten himself out of the rut, and at the same time has contributed his share towards stimulating business in several other lines.

DO CAR SEALS PROTECT THE SHIPPER?

Shippers who seal a car of grain, rest easy in the assurance that the seal, to some extent, will protect their claim for loss of grain in transit. John Dower, supervisor of weights of the Merchants Exchange of St. Louis, calls our attention to the many cases in which such seals afford no protection whatever, simply because they are improperly applied. He recently sent out the following letter to various freight claim agents, bringing this important matter to their attention:

"Enclosed is photo of a bunch of seals found on grain cars arriving at Hold Tracks in St. Louis. These seals were hung on hasp at loading point or enroute but not adjusted properly, consequently were no protection to contents of cars. The seal record of carrier at station where these cars were loaded no doubt shows correctly as to number in-



A BUNCH OF UNAPPLIED SEALS FOUND ON INBOUND GRAIN CARS ON HOLD TRACKS AT ST. LOUIS

scribed thereon, but apparently there was negligence on the part of shipper and carrier in not applying them properly.

"The seal record is a very important factor nowadays in the movement of a grain car, and as an exception it is often responsible for considerable loss of grain due to possibility that seal was broken for the purpose of stealing. In this instance, as shown by photo, however, it can be assumed that the cars were not under proper seal protection at any time after loading. This exhibit is only part of those we have found during the year, as in the early summer, we adopted the plan of sending all open seals to officials of road on which they are found; this ocular demonstration of the seal itself we have found gives better practical results and as the number and inscription on each seal is an index to where applied, it acts as a guide to carrier in ascertaining where laxity exists in this respect.

"The practice at nearly all shipping points, as we understand, is for the railroads to apply seals after cars are loaded; relative to this the Merchants Exchange Department of Weights has at various times advised shippers to provide their own seals and have them consecutively numbered, also the name of firm inscribed thereon. Doing this would in a measure establish the fact that they were careful and systematic in their methods used in grain handling, and we would suggest that they show seal record on shipping ticket the duplicate of which they retain so that in the event

claim is made they would note at a glance any discrepancy in seal record.

"In connection with this subject I will add that a well equipped weighing department which functions as it should is of much protection to shipper, while at the same time in co-operation with the carriers it becomes a helpful police protection and no doubt assists materially in reducing claims."

ANTI-FREEZING SOLUTIONS FOR YOUR WATER BARRELS

With winter on us, don't let the first cold snap freeze up your water barrels, and render them useless, at the very time when you may need them the most, for cold snaps and fires go together. A brine solution has a much lower freezing point than clear water and is four times as effective in fighting fire. The best proportion is about 75 pounds of coarse salt, dissolved in boiling water, for the average sized barrel. Three pounds of bicarbonate of soda should be added to prevent the mixture from becoming foul. It should be stirred frequently during the cold weather.

Calcium chloride solution is even better. It does not become foul and can be mixed so that it will be non-freezing at any required temperature. It does not rust metal like common salt, but has a tendency to attack solder, so if metal barrels are used about a pound and a half of lime should be added, which will overcome this difficulty.

The quantity of calcium chloride necessary to be added to each gallon of water to prevent freezing at the stated temperatures is:

1 pound.....	27 degrees above zero, F.
2 pounds.....	18 degrees above zero, F.
2 3/4 pounds.....	3-4 degrees above zero, F.
3 pounds.....	1-4 degrees below zero, F.
3 1/2 pounds.....	8-11 degrees below zero, F.
4 pounds.....	17-19 degrees below zero, F.
4 1/2 pounds.....	27-29 degrees below zero, F.
5 pounds.....	39-41 degrees below zero, F.

All that is necessary in preparing this solution is to dissolve the chemical in the water and add the lime. Why not do it now? It may freeze tonight.

COUNTIES THAT LEAD IN FARM PRODUCTS

The first eight counties in the United States, in order of the value of their farm products depend on other products than grain, although hay is a large share of the value of the leaders.

Citrus fruits and walnuts have placed Los Angeles County, Calif., first in rank of all counties of the country in the value of agricultural products, according to the Bureau of Census, which has just made public a list of the 50 counties leading all others in 1919 in the worth of their agricultural products. Hay and forage are also important crops which helped swell the total of Los Angeles County's farm products to \$71,579,899 in value that year.

Next to Los Angeles County comes Fresno County, also in California, the value of whose grapes, peaches, hay, and forage and dairy products is placed at \$55,110,101 for the year. Aroostook County, Me., a large producer of potatoes, ranks third, its products totaling \$54,376,256. Fourth place is occupied by San Joaquin County, Calif., whose crops were worth \$41,191,240 in the year. Potatoes, grapes, barley, and hay and forage, in the order named, constitute the principal agricultural products of that county.

Lancaster County, Pa., whose leading crop was tobacco, was fifth with products valued at \$40,776,212; Yakima, Wash., with apples leading in the list of farm products, was sixth; Tulare, Calif., with grapes as the first product, seventh; and Sonoma, Calif., whose chief agricultural industry was the raising of poultry, eighth. Whitman County, Wash., ninth on the list, is the first grain raising county to rank among the leaders. Dane County, Wis., with dairy products leading, is tenth.

The 50 leading agricultural counties were distributed among the several states as follows: California, 13; New York, 7; Illinois, 5; Texas, 4; South Carolina, 4; North Carolina, 3; Washington, 2; Wisconsin, 2; and 1 each for Arizona, Colorado, Connecticut, Maine, Minnesota, and Mississippi.

Remedying Defects in Moisture Tester

An Investigation of the Defects of the Official Brown-Duvel Moisture Tester and a Proposed Remedy

By A. A. JONES, and J. WM. BARKER*

OUR extensive use of the Official Brown-Duvel moisture tester in the cereal industry has shown up certain defects and limitations of the apparatus as a means of milling control and the technical grading and inspection of grain.

Duplicate tests or series of tests on the same grain produce such discordant results that one is oftentimes inclined to resort to the old method of biting the grain as being just as reliable. Occasionally check results can be obtained but more often a difference in result of from two-tenths to more than 1 per cent is noted with no apparent reason for the variation and as a result it is necessary to repeat the test.

The three chief causes of abnormal and discordant results, in the order of their importance, are: (1) destructive distillation of the grain; (2) lack of uniformity in the dimensions of the thermometer bulbs; and, (3) error in calibration of the graduated cylinders.

The destructive distillation of the grain seems to be due to local superheating of the oil and grain. This is evidenced by a sudden rise or fall of the mercury column of the thermometer, by charring of the grain and by discoloration of the distillate. Local superheating begins at about 150 degrees centigrade and continues to the end point. This is easily demonstrated by jarring the thermometer and later examining the distilled grain for charring.

Both vacuum and nitrogen filled thermometers were examined and were found to vary greatly as to length of the mercury bulb. Vacuum thermometers showed the greatest variance, those from the same source varying as much as 6mm. in length of bulb. The nitrogen filled thermometers manufactured by the Taylor Instrument Company, (Tycos) were very uniform and of the proper length, which is a bulb seven-eighths of an inch long and of slender proportions.

Graduated cylinders from three different sources were standardized and found to give readings less than the actual volume. This error was found in some cases to amount to four-tenths of a c.c. in 15 cc.

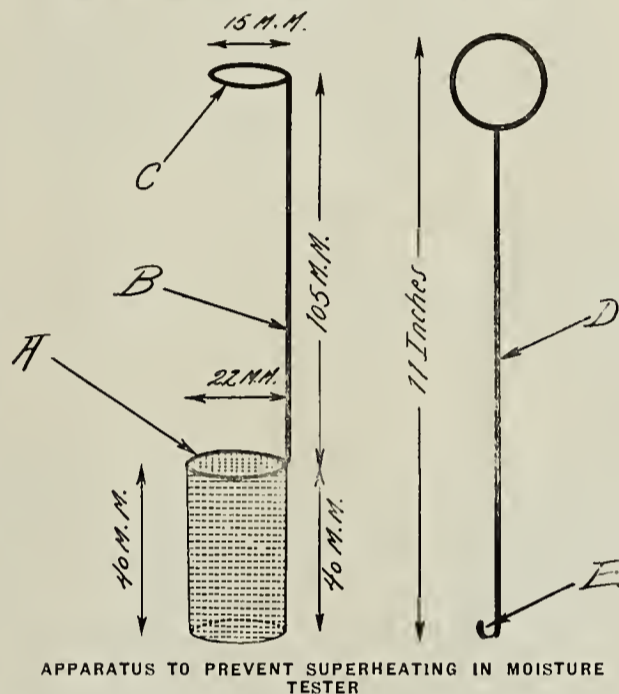
In order to make a reliable investigation it was necessary to first select thermometers with the proper length bulb and to recalibrate our graduates. With the working conditions for each compartment approximating that of all the others we were in position to proceed with an investigation of the causes and prevention of superheating.

Believing the reason for superheating to be the inhibiting of free convection currents in the oil and by the grain itself, we designed the apparatus to produce freer circulation of the oil and thus a more uniform distribution of the heat.

Except for minor refinements, the apparatus as originally designed proved successful in preventing local superheating entirely. This apparatus was designed to provide a well with bottom and sides through which the oil could percolate and then rise and flow outward in the free oil above the grain. To accomplish this result, a cylinder, A, 40 mm. long by 22 mm. in diameter was made of No. 18 mill screen wire, a heavy tinned gauze, with a mesh approximately 1 mm. square. The lower end is closed with gauze of the same mesh. Rising from the upper edge of the cylinder is a stiff wire handle, B, 105 mm. in length with a ring, C, 15 mm. in diameter turned at right angles at the top. The center of the ring is coincident with the axis of the cylinder.

In use, the sample of grain is placed in the flask and by means of an accessory wire, D, the gauze

cylinder is settled in the grain to the bottom of the flask. This places the ring at the upper end of the wire, in the lower part of the neck of the flask. It is thus held securely in an upright position. The oil is then run in and the thermometer placed in position with the stem through the ring, C, at the upper end of the wire and the bulb in the well of oil in the cylinder, A. This cylinder does not cut off the operator's view of the bulb of the thermometer or its adjustment in the oil. The thermometer is adjusted with one-fifth of the bulb exposed and the distillation completed as recommended by the Official Method. The accessory wire



is provided with a hook, E, for removing the gauze cylinder before emptying the flask.

All our investigations were conducted on wheat which was thoroughly mixed in a mixing machine and the tests made on an Official Brown-Duvel Moisture Tester.

Table I is representative of results obtained without our appliance.

TABLE I
(Without Appliance)

Flask No.	I	II	III	IV	V	VI
Heat turned off.....	180°	180°	180°	180°	180°	180°
Highest temperature reached.....	195°	193°	196°	192.5°	198°	191.5°
Per cent moisture.....	10.82	10.17	9.66	10.66	10.96	10.47
Physical condition of wheat.....	Some charring noticed in all—dark brown to black.					

Behavior of thermometers..Nos. 1 and 2 rose smoothly after turning off the heat. No. 3 rose suddenly to 188° then dropped to 183° when jarred, then rose smoothly to 186°. No. 4 rose smoothly. No. 5 rose smoothly to 191° then suddenly to 198° but dropped to 195° when jarred, rose smoothly then to 197.5°. No. 6 rose smoothly to 191.5°.

Table II is the results obtained with the same wheat, the same thermometers and under similar conditions to those obtaining for Table I except that our appliance was used in each flask.

TABLE II
(With Appliance)

Flask No.	I	II	III	IV	V	VI	VII	VIII	IX	X
Heat turned off.....	180°	180°	180°	180°	180°	180°	180°	180°	180°	180°
Highest temperature reached.....	186°	187°	186½°	187°	186½°	187°	189½°	189½°	190°	187°
Per cent moisture.....	9.30	9.45	9.25	9.32	9.32	9.35	9.35	9.32	9.22	9.25
Physical condition of wheat.....	No charring—Uniform brown throughout.									
Behavior of thermometers.....	After turning off heat all rose smoothly to the maximum and then fell smoothly. Not affected by jarring.									

An experiment was next performed using our appliance with vacuum thermometers to show the quantitative effect of differences in length of the

mercury bulb. It was found that for each millimeter increase in length of bulb the apparent moisture content was 0.1 per cent lower. When using a thermometer with a bulb one inch long, results were 0.35 per cent lower than the mean. When using a thermometer with a bulb only eleven-sixteenths of an inch long, results were 0.34 per cent higher than the mean. As all nitrogen filled thermometers which were available were of uniform length, we were not able to determine the effect of differences in length of bulb for them.

If an operator inadvertently permits the temperature to rise above the point designated by the directions accompanying the Official tester, the results are usually abnormally high and are always to be discredited. We, therefore, wished to determine the effect of higher temperature than those designated, when using our appliance. Accordingly a series of determinations were made on wheat, turning off the heat at 180°, 185°, 190° respectively. Results are shown in Tables III, IV and V.

TABLE III
(With Appliance)

Flask No.	I	II	III
Heat turned off.....	180°	180°	180°
Highest temperature reached.....	189°	190°	188°
Per cent moisture.....	9.86	9.94	10.04
Mean per cent moisture.....	9.94		
Maximum—Deviation from mean.....	0.1%		

TABLE IV
(With Appliance)

Flask No.	I	II	III
Heat turned off.....	185°	185°	185°
Highest temperature reached.....	194°	195.5°	192.5°
Per cent moisture.....	10.17	10.25	10.25
Mean moisture.....	10.23%		
Maximum deviation from mean.....	0.06%		

TABLE V
(With Appliance)

Flask No.	I	II	III
Heat turned off.....	190°	190°	190°
Highest temperature reached.....	198°	197°	198.5°
Per cent moisture.....	10.37	10.45	10.25
Mean moisture.....	10.36%		
Maximum deviation from mean.....	0.11%		

No charring of grain was noticed at any temperature below 200° C. when our appliance was used.

From the data which we have available it appears that when using our appliance a flat deduction of 0.2 per cent from the moisture reading is applicable for each five degrees rise above the official temperature should this happen when making a test.

CONCLUSIONS

1. Superheating of the oil and grain in a Brown-Duvel moisture tester produces unreliable results.
2. Appliance to prevent superheating is described.
3. Dependable check results were obtained with this appliance.
4. Specifications were given for type and length of thermometer bulbs.
5. Need of more careful calibration of graduated cylinders was indicated.

MEMPHIS, Little Rock and Nashville are buying comparatively little oats in this territory this year. H. W. Conyers, local dealer, says this is due to the poor grade of Oklahoma oats, to freight rate advantages enjoyed by northern dealers over Oklahoma dealers, and to the financial depression in the cotton-growing region. Mr. Conyers has not shipped a car of oats to any of those markets this year, whereas last year his shipments amounted to 300 cars. Only three samples out of 100 he examined

*This article by Messrs. Jones and Barker, who are Head Chemist and Assistant Chemist for the Larabee Flour Mills Corporation at Hutchinson, Kan., is copyrighted by the American Association of Cereal Chemists and republished by permission of the authors.

recently showed the oats as good as No. 3 grade. The crop is going begging, he says, with a price of 35 cents a bushel attached.

The B. & O. Grain Terminal at Baltimore Locust Point Elevators Handle Great Volume of Grain In Spite of Handicap of Age

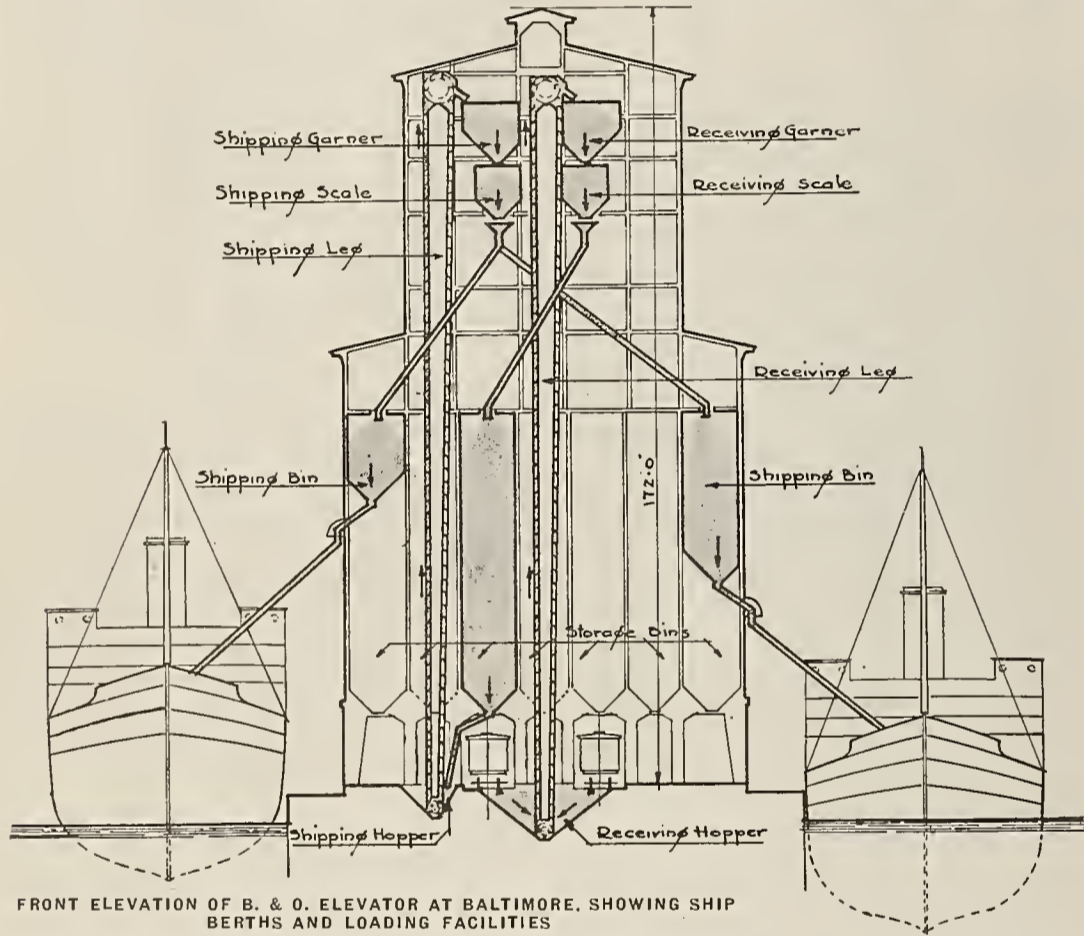
ONE important function of the Baltimore & Ohio Railroad as a common carrier is the movement from the Middle West of freight which is to be exported to foreign countries. The principal terminal for the transferring of this freight from cars to vessels is located at Locust Point, where all the merchandise and grain exported from the Port of Baltimore are handled. With the single exception of coal, which is handled at the new coal pier at Curtis Bay, grain is the most important commodity which is handled for export. Some conception of the volume of this class of traffic can be realized from the statement that during the year 1920, 15,625 cars of grain, which was hauled over the Baltimore & Ohio Railroad lines from Chicago, St. Louis, Fairport and other western points, were delivered to vessels at Locust Point for export to European countries. To handle this grain it is necessary for the railroad to have

export grain can readily be seen from an inspection of the following figures, which show the total number of bushels of grain loaded for export at each port on the Atlantic Seaboard during the year 1920. Total exports for that year were larger than usual, but the ratios are about normal.

New York.....	83,101,000	bushels
Baltimore	55,629,405	"
Philadelphia	24,952,774	"
Portland, Me.	18,196,286	"
Boston	6,057,742	"
Newport News	2,398,705	"

Total Atlantic Seaboard.... 190,335,912 "

It will be noted that the Port of Baltimore handled 29 per cent of the total grain exported—more than double that handled at the Port of Philadelphia and second only to the Port of New York. Baltimore's share in this business was distributed



FRONT ELEVATION OF B. & O. ELEVATOR AT BALTIMORE, SHOWING SHIP BERTHS AND LOADING FACILITIES

facilities for the unloading of cars, storage of grain subject to owners orders for shipment, and the loading of grain into holds of ships, as well as for the drying, cleaning and separating of certain shipments when desired.

The Baltimore & Ohio was the pioneer in providing such facilities in the port of Baltimore, and for this purpose, there was constructed in the year 1872 a structure known as Elevator "A," with a storage capacity of 500,000 bushels, which was subsequently destroyed by fire in the year 1891. The present facilities are shown in the accompanying photographs. The smaller of the two storage houses is known as Elevator "B," and was built in 1874. This is a frame structure with metal covering on outside, 100 feet wide by 330 feet long, and with a storage capacity in bins of 1,200,000 bushels of grain. The larger house, known as Elevator "C," was built in 1881 and is also of frame construction, the exterior of main structure being veneered with brick and the walls of the cupola being covered with slate. This house is 87 feet wide by 410 feet long and has a storage capacity of 1,300,000 bushels of grain. When completed, these houses constituted the principal export terminal for grain on the Atlantic Seaboard, which position they continued to hold until the development in recent years of the large concrete elevators which have been constructed by other roads.

That these houses, 40 years or more after their construction, are still handling their full quota of

as follows among the three roads having grain export facilities:

Baltimore & Ohio Railroad.....	21,874,578	bushels
Western Maryland Railroad.....	18,071,359	"
Pennsylvania Railroad	15,683,468	"
Total	55,629,405	"

From the above it will be seen that the facilities at Locust Point were called upon to handle and did handle more grain during the year 1920 than the recently constructed modern terminals of either of the other roads.

To offset the handicap of using today facilities designed and constructed more than 40 years ago for unloading grain received in cars which did not exceed 30 feet in length and 500 bushels in capacity, it is necessary to develop a spirit of co-operation among all employes and an extremely intensive use of facilities provided. That this has been accomplished under the supervision of T. H. Seal, superintendent of elevators, and C. E. Wood, general foreman in direct charge of elevator operation, the accompanying figures will readily show.

In unloading cars of grain, it is necessary to switch same directly into the house, for which two tracks are provided in each elevator structure. Each car is placed over a hopper into which grain is unloaded and there were provided in Elevator "B" eight hoppers on each track and in Elevator "C" 12 hoppers on each track. As these hoppers are spaced about 30 feet apart, it was only

necessary in the early use of these elevators to switch on to each track a cut of cars equivalent in number to the number of hoppers provided on that track, as the average length of the cars was such that no further cutting or spotting was necessary. The increase in the length and capacity of rolling stock, however, now makes it possible to unload a car only at every other hopper and makes it necessary in placing cars for unloading to separately cut and spot each car unloaded.

The unloading of cars under these conditions, of course, requires very close attention as to switching and to prompt unloading when placed. The present combined capacity of both houses is 20 cars at one spotting and effort is made to unload these cars and replace them as many times as possible during working hours, and it is now a common



MARINE LEG UNLOADING BARGE

occurrence to unload 90 or more cars in a single eight-hour shift. All previous records were broken, however, on Friday, May 6, 1921, when 105 cars were placed by two switch engines and unloaded during a period of 7 hours and 20 minutes. On this particular date, only 18 cars could be placed at a single spotting as two of the hoppers in Elevator "C" were undergoing repairs. During this same period, in addition to unloading 105 cars, three ships were being loaded and one small



LOADING VESSEL BY SHIPPING SPOUT

schooner unloaded—all of this work being handled with the normal elevator force which has now been reduced to 82 men for a day's shift.

The cross sectional view of elevator shows the method of handling grain from cars to bins and from bins to vessels, which will help to give a clear idea of the operation together with the following description. The receiving hopper into which each car is unloaded is connected to a leg. Grain is elevated from receiving hopper to the cupola of elevator and there discharged into a small garner. The garner in turn discharges by gravity into a scale, which provides record for checking weight of grain in each car unloaded. The main storage section of elevator is partitioned off into bins approximately 11 feet 6 inches square and 65 feet deep, and after being weighed, grain is delivered by gravity from scale to convenient bin which has been assigned for its reception. Each scale is arranged to reach by means of spouts approximately 12 bins.

When grain is taken out of storage for loading

into vessels, gate at bottom of bin is opened and grain is spouted into a hopper in floor of elevator. Hoppers for this purpose are entirely separate and independent from hoppers provided for unloading cars, as are the legs, garners and scales which are used for the elevation, collection and weighing of grain for shipment—the process being a duplicate of that described for the unloading of cars, except that grain instead of being discharged from scale into storage bin is discharged into shipping bin which is directly connected by long gravity spout on outside of elevator which leads into the hold of ship in adjacent slip. Method of spouting from elevator to hold of ships is shown in one of the smaller illustrations. As each elevator structure has slip on either side, it is possible to load four ships at one time. During the month of April, 1921, 34 ships were loaded from these elevators.

Export grain terminals are usually so arranged that it is necessary to handle grain a considerable distance on a belt conveyor before same can be delivered to spouts which reach vessels, but in this terminal, due to the direct connection of ships as above described, these elevators are today unexcelled by any export terminal for speed in loading vessels, as has frequently been demonstrated by the delivery to a single ship of 45,000 bushels of grain per hour?

In addition to the mere unloading, storage and shipping of grain, other services are rendered for grain owners—one of the most important of which is the drying of grain. For this purpose modern

the interruption of transportation of export grain on account of the loss of facilities for handling this class of traffic.

As a means of safeguarding against fire, there is maintained at Locust Point a permanent fire brigade both day and night with necessary equipment for use in any emergency. There is also provided in each elevator a complete standpipe system with hose connections, as well as city fire alarm boxes on each floor and constant watchman service throughout the entire structure. Workmen are prohibited from carrying matches or any of the other necessities for smoking within the elevators.

Under the able direction of L. P. Kimball, engineer of buildings, the elevators have been brought up to the last minute development in fire and explosion protection, and that is in the dust collection system furnished by L. A. Stinson Company of Chicago; the sweeper system installed by the Cyclone Blow Pipe Company of Chicago; and the blowers and high pressure pipe lines for disposing of the dust. A description of this dust collecting system was given in these pages in a recent issue. Suffice to say that these systems are as complete and furnish as adequate protection as in any terminal elevator in the country.

DOES IT PAY TO HOLD WHEAT?

Another contribution has been made to the endless discussion whether it pays the farmer to hold his wheat or market it as soon after harvest as convenient. The contribution in question is a

would be disastrous to prove conclusively that any particular month was the best to sell wheat. To do so would be to defeat the best interests of all concerned. Farmers, millers and consumers are alike interested in reasonably stable prices and that can occur only through gradual marketing of the crop. Undue haste to sell or unreasoning determination not to sell, have always made trouble.

EFFECT OF SNOW ON WINTER WHEAT

Weather Bureau officials have been investigating the effect of snowfall on Winter wheat by comparing weather data with wheat yields. Thus far the published comparisons have been for limited areas only, including Fulton, Wayne and Seneca Counties in northern Ohio and parts of Illinois. It must of course be remembered that there are other crop making and crop destroying factors aside from snowfall. The data given herewith were compiled by J. Warren Smith and C. J. Root.

A heavy fall of snow is generally considered favorable for winter crops especially if it comes late in the spring. But observations made in the northern Ohio counties named do not bear out this belief. A heavy snowfall in January has a slightly favorable effect; in February, scarcely any effect; whilst in March it has a decidedly adverse influence. A warm March in Ohio is always favorable to Winter wheat, and a March accompanied with a heavy snowfall is cooler than normal, while a warm March has usually a light snowfall. But the



BALTIMORE & OHIO ELEVATORS AND RAIL TERMINALS AT BALTIMORE, MD.

Hess Grain Dryers have been provided adjacent to each elevator, which include conveyors for the delivery of grain to dryer, steam coils and fans for the drying of grain and its necessary subsequent cooling, and conveyors for redelivery of grain after being dried into storage bins. These dryers have a combined capacity of 6,000 bushels per hour, and the importance of same can be realized when it is known that they have been in constant operation night and day since February 23 of this year, a night shift of 22 men being employed for this operation.

A marine leg with a capacity of 4,000 bushels per hour is provided at the water end of each elevator—these marine legs consisting of a telescopic bucket elevator which can be lowered into the hold of a vessel by means of which grain is directly conveyed from vessels to storage bins. These marine legs are used in the unloading and placing in storage of a considerable amount of grain which is produced adjacent to Chesapeake Bay.

Consideration was given a few years ago to the possible construction of a modern concrete type of elevator for the handling of export grain business at Locust Point, but due to the influence of the war and consequent enormous increase in the cost of labor and materials, this work has been indefinitely postponed, and it has, therefore, been necessary to operate the present facilities in the most intensive manner possible, and to safeguard them against destruction by fire with every means possible, as the destruction of these facilities, in addition to the causing of a financial loss, would result in an enormous decrease in revenue due to

series of charts issued by the Federal Reserve Bank of Minneapolis relating to wheat prices and going back as early as 1876. One of the charts covering a 10-year period shows the Chicago monthly range of price, and on this showing an argument has been built up showing that the longer the farmer holds his wheat, the less he gets.

The chart shows, we are told, that in only 25 months out of the 120 months in the 10-year period, would it have paid the farmer to hold his wheat as compared with selling it at the August price. In the other 95 months there was a loss as compared with the August price. Averaging the exhibits of the chart it appears that by selling in September instead of August throughout these 10 years the farmer would have sustained an average loss of 5.1 cents per bushel; selling in October instead of August his average loss would have been 7.2 cents per bushel; selling in November the loss would have been 12.3 cents; in December 13 cents; in January 13.8; in February 12.3 cents; in March 13.6 cents; in April 14.1 cents; in May 12.7 cents; in June 10.7 cents; and in July 9.1 cents.

Unfortunately the figures prove too much. Of course it is Spring wheat that the chart is concerned with. The Spring wheat sold in August is usually old wheat, not the new wheat. September prices should be taken as a basis, not August. It will be noticed that the average "loss" to the farmer decreases gradually from April to August. This accords with popular belief and experience of both farmers and millers.

In our view the discussion is purposeless. It

data enables the elimination of temperature and shows the dominating influence of the snowfall.

It is a matter of common belief that a covering of snow during cold weather is beneficial to Winter wheat, especially when alternate freezing and thawing conditions occur. As a heavy snow may melt rapidly and a light fall may remain a long time, the questions of snowfall and snow covering must be considered separately. The observations made in northern Ohio show little to substantiate the opinion that snow covering is a matter of large importance. The data seem to show that the relation between the yield of wheat and the duration of the snow covering is extremely limited. A surprising circumstance is that there is some evidence that it is more advantageous to wheat if it is not covered by snow during January.

Data for Illinois seem to show that cold winters with heavy snowfall are followed by light yield, and, vice-versa, winters with little snow are followed by good yields of Winter wheat. The authors admit that this may be partly due to the fact that the temperature is less severe in winter seasons with light snowfall.

In the matter of snow covering, it is also admitted that the matter should be considered district by district and that local conditions may modify conclusions.

HUSKING 124 bushels of corn a day for 14 days is a record set by Roland Meyers on a farm near Fremont, Neb. This may not be a world's record, but if it has been beaten we would like to hear about it.



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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., DECEMBER 15, 1921

THE WORLD'S BUYING POWER

EUROPE and a group of international bankers have persuaded themselves and a great many Americans, that the hope of successful recovery of business lies in extensive financing of Europe by the United States. This, it is argued, will enable Europe to buy our surplus materials, and will increase the price which the producer receives, and in turn will increase the farmers' buying power.

On its face this looks like sound doctrine. But Arthur Richmond Marsh, editor of the *Economic World*, takes a fall out of the theory by pointing out that the farmers' buying power is reduced because manufacturers will not or cannot reduce their cost to a parity with raw materials. He holds that labor here and abroad is holding up the price of things the farmer buys and that until labor is willing to accept an adjustment in wages there will be no recovery. In England, for instance, the Government pays an unemployment subsidy which amounts to more than the pre-war wage in many cases. As a consequence thousands of laborers will not even look for work, being content with the subsidy; there is little competition for work and those who do work just about dictate the wage scale. Except in staple necessities, manufactured goods in England and on the Continent are very high and factories are working on short hours, which in itself means greatly increased costs. The increased cost of part time production was recently figured out by an Indiana flour mill. When the mill produced 150 barrels per day (capacity) the manufacturing cost was 58.8 cents per barrel.

When the production fell to 40 barrels per day the cost was \$1.581 per barrel. Other industries show similar cost figures. There is no question but that farmers and townspeople will buy when things are reasonable in price, and our domestic buying power is large enough, if given a chance, to revive industry all along the line. Organized labor, however, is in the saddle and will not accept their share of reconstruction losses. They rather remain unemployed than work for less than a war wage. Mr. Marsh puts it like this:

And it is idle to suppose that any conceivable direct or indirect effects of the most lavish contributions of the United States to the financial rehabilitation of Europe would assist our own economic situation by one-tenth or one-twentieth or one-hundredth part as much as would readjustment of the relative position of our agricultural population in such wise that it could purchase and consume the products of our industry as formerly it did. This, then, is the true direction in which Americans must seek relief from the business depression that now plagues them.

PEACE AND GOOD WILL

THE conference on reduction of armaments at Washington now appears to be well on the way toward an accomplishment greater than the most optimistic of us dared hope for. Reduction in Federal navy and army expense will become effective at once and taxes will be reduced proportionately. This in itself would be enough to give fame and honor to the members of the conference. But there is every indication that limitation of armament is only a beginning.

An assured peace on the Pacific means an assured peace throughout the world so far as the first rate powers are concerned. And with peace will come adjustments of international finance and trade that will be of material benefit to every business man in the country and in the world. It is a fitting season in which permanent peace should be brought so much nearer; the season when the doctrine of peace and good will was given to the world over 1,900 years ago. May the blessings which accrue from this happy outlook—may the joy of Christmas and prosperity of the New Year rest with you and yours.

FUTURE TRADING ACT ON DECEMBER 24

AS A gift from Santa Claus the grain trade will have the Future Trading Act which becomes effective on December 24. The suit, testing the legality of the Act which will be heard by the Supreme Court on January 3, affects only the Chicago Board of Trade. Kansas City, St. Louis, Minneapolis, Duluth, Milwaukee, Toledo and the Open Board of Trade at Chicago have applied for and been granted designation as "Contract Markets."

If the Supreme Court decides that the law or any section of it is unconstitutional, the decision will affect all markets of course, but to all intents and purposes there will not, even then, be any material change in grain trading. On December 12, the Supreme Court amended its restraining order by ordering the Secretary of Agriculture to designate the Chicago Board of Trade as a contract

market without the necessity of that market complying with the provisions of the law. The Board has voluntarily amended its rules to comply with most of the terms of the Act so that it will function on the same basis as the other markets and just as it has in the past.

UNIFORM FEED LAWS

SLOWLY the feed trade is being led out of the wilderness in which it has wandered for 40 years—and then some. No Moses is responsible, no outstanding figure can be pointed to as the leader to the promised land, but there are many individuals and organizations that have done their full quota of work and the aggregate result is most encouraging.

The Association of Feed Control Officials have done much. Perhaps their greatest contribution is in their uniform feed law which a new committee is bringing up to date, and to comply with which another committee is drafting a set of uniform tags and registration blanks that will provide a uniform time of registration. To be sure feed laws are not yet uniform, but state legislatures are in a more receptive mind than ever before and this means a great deal. The uniform trade rules make a distinct step forward and the conferences which brought about these rules made a definite improvement in mutual understanding and sympathy. The feed trade has a brighter future than has been apparent for many years.

EDUCATING THE FOREIGN TASTE

SEVERAL futile attempts have been made from time to time to introduce corn bread to Europe. Even the enthusiastic Col. Murphy with his southern darky cooks could not overcome the established preference for wheat bread, eaten cold. Cold corn bread isn't a thing to brag about, and the idea of hot bread had all the European dieticians up on their hind legs yelling of the destruction of digestive organs, the ruin of complexions and other hideous consequences. It appeared that European ladies had complexions that weren't purchased at the drug store after all. The upshot of it was that Europe would have none of our corn for human food.

But a change is coming. During the war and since, cereal mixtures have been compulsory in most countries of Europe and they found that corn flour makes a cheap, wholesome and easily handled addition to wheat bread. A certain amount of this practice will persist and corn flour exports will be permanent if starch manufacturers do not kill the trade by substituting corn starch, which is a very different article.

A more important opening for corn products has come through the efforts of the American relief organizations which are feeding the destitute population of eastern and central Europe and the Near East. Corn grits, boiled and served as a vegetable in place of rice and pearl barley, to which those people were accustomed, forms a large part of the relief ration, and is proving extremely popular. Corn meal mush is also gaining a

favorable reception so that these products have undoubtedly produced a market which will be permanent.

In proportion to our corn production, the export of corn products will never be great; they cannot be, as most of our corn never leaves the farm as grain, but even a little dependable export trade helps to stabilize the market at home and the entire grain trade will be benefited.

FROM HEADQUARTERS

PRESIDENT Harding's message to Congress last week contained much of value, if his wishes are followed by Congress, and other things which the department heads or congressional committees have passed up to him so that they might be presented to Congress and the people as matters of general policy and not as pet theories of this or that bureau or committee.

Without question a constitutional amendment abolishing the issuance of non-taxable bonds as recommended by the President, would be one of the greatest aids to general business that Congress could concern itself with. But at the same time it would be a difficult matter to get the ratification of three-fourths of the states even if Congress should adopt the amendment. State pork barrels are kept filled with tax-free bonds, and how a politician does hate to disturb the pork barrel!

Passing over other constructive and valuable parts of the message, such as the reference to strikes and lockouts; supplying the American Relief Administration with food and seed grain; the warning against the American valuation plan of tariff; and the advocacy of a flexible tariff in the hands of a permanent board; we come finally to the statement that "Every proper encouragement should be given to co-operative marketing programs."

This was quite evidently put in as an effort to cover the tracks of the Secretary of Agriculture, and so should be included in a discussion of the report of that office.

SECRETARY WALLACE PASSES THE BUCK

SECRETARY Wallace has been under fire ever since he took office in respect to the activity county agents are displaying in the organization of co-operative marketing agencies. In his report given on December 12, he makes no mention of the county agents' work except in a general way. He passed the buck to President Harding and now has the public endorsement of the county agents' activities which have been so generally condemned by grain dealers, feed and produce dealers and storckeeper in the country towns.

To be sure the President has left a loophole in his use of the word "proper". "Every proper encouragement," he says, and of course if the pressure becomes strong enough it may appear that the county agents' work is not proper. It is not proper and Congress never intended such an abuse of Federal agencies when they passed the Agricultural Extension Law. At the present time there are 2,400

county agents at work and most of them are bending their energies toward the destruction of private business enterprise. If that is "proper" we must have been transported to Russia without knowing it.

Secretary Wallace says: "Marketing is as truly a part of production as is the growing of the crops, for the crops have no value unless they can be put into the hands of those who need them. The assembling, storing, and distributing of farm products are productive enterprises and those engaged in this work require much the same economic and technical information as that required by farmers."

In addition to this same information as required by farmers, the distributor needs to know a great deal of specialized matters of which the farmers have had no experience whatever. Secretary Wallace knows this. And yet he goes on encouraging farmers in the belief that they can take up the marketing of their products without training and compete successfully with the present instrumentalities which have been developed only with years of patient study and application. The whole program is absurd upon its face.

LESS CORN ACREAGE

REDUCTION of corn acreage is being preached widely through the corn belt by state organizations and farm journals, and the idea is receiving quite general support from leaders. Such movements in the past have had a sorry way of falling through as individuals have given their enthusiastic endorsement and then tried to beat the game by planting the usual or even increased acreage so that they could reap the benefit of their neighbor's curtailment. But this year the farmers seem to be in earnest, and they have reason to be.

Corn is the yellow dog of agriculture. It has been kicked and beaten this year until it has taken refuge in the cellar and no coaxing seems to bring it out.

What with burning, hogging down, and waste, the end of the crop is liable to show a surprising shrinkage, and this, with a materially decreased acreage, will bring corn again into the "King" class. This year seems about the best opportunity ever known to make a concerted action count.

SPECIALISTS

THE grain champions for 1920 are duly crowned and they deserve all the honor and the prizes that they earned with the award. The names of J. W. Workman and Ed. A. Lux will never be forgotten by corn growers nor that of John W. Lucas for oats, G. W. Kraft for wheat, and Otto Wolf for hay. All of these men have been among the top notchers of their specialties for years and it is to effort such as theirs that progress in grain growing and improvement in strains is due.

But a word should be said, too, for the all-around man, the farmer who specializes in farming, not in growing one or two or three grains. There were several such men

represented at the International Grain and Hay Show, and as an outstanding example the name of Arthur W. Jewett, Jr., of Mason, Mich., presents itself. Mr. Jewett won first places in Soft Red Winter wheat, White Winter wheat and in the Timothy hay awards. He was third with Red Clover, third with six rowed barley; third with rye; fifth in Region 2 with oats; fourth in his region with flint corn; eighteenth in Region 2 with both White corn and Yellow corn; seventh with soy beans; and third with field peas. It occurs to us that some special prize should be awarded for such versatility.

RATE COMPLICATIONS

NEVER before in the history of railroad-ing has the question of rates offered more difficulties than at present. Not only is the Interstate Commerce Commission undecided as to what rates are just and fair, but shippers do not know and have no way of finding out what rates they will have to pay after January 1. As we go to press, on December 14, the Commission is hearing the petition of the carriers, that their proposed 10 per cent discount on most farm commodities affective all over the United States be substituted for the order of the Commission in the Western Rate Case reducing rates on grain, grain products and hay by one-half the advance made under Ex Parte No. 74. On the same day the Commission begins hearings on general rates, all classes and commodities being considered.

The fact that the two hearings are set for the same day leaves the impression that the carriers petition will be granted, and that instead of the expected 17½ per cent reduction the rates will be only 10 per cent lower. However, western interests are prepared to show that this will not afford the necessary relief and the Western Rate Order may be enforced. This is possible but not probable, according to well informed traffic men.

VIA AIR

A RECENT report by a New York company which operates regular airplane lines, suggests many possibilities of the future. Commercial flying is a success. The machines of this firm covered 92,000 miles, carried 1,044 passengers, 24,002 pounds of mail, and 5,000 pounds of freight without injuring a person or having an accident of any kind. Only four forced landings were made during the year. This report will do more to stimulate air travel than all the stunt flying of the past. In another decade the airplane will be as commonplace as the auto, and no doubt there will be flivvers of the air to bring flying within reach of all.

This recalls the flight of a Nebraska grain dealer last year, who visited several stations in a few hours that would have taken days by railroad. So far as we can learn, he was the pioneer in this flight. We predict that the grain trade will be one of the first business groups to take advantage of the opportunities for quick communication by air, for in no industry is speed more essential and personal

interviews of greater value. The factor of safety in airplanes has been so increased by recent improvements that the danger is now little greater than on rail or highway. We are on the verge of great changes, and general air travel will be among the first to come.

EDITORIAL MENTION

It takes more than a drought in Kansas and Oklahoma to arouse interest in the wheat market, but there may be some fast stepping before the May option expires.

Governor Miller of New York is having a hard time convincing western representatives that his fight against the St. Lawrence waterway is wholly disinterested.

Shippers who sold grain for delayed delivery on the assumption that the Interstate Commerce Commission would enforce the Western Rate Case decision are out of luck.

The Corn Belt Finance Committee is a well balanced group. The grain trade will be inclined to give it confidence with Governor Warren T. McCray of Indiana as chairman.

Four times the Sunset Grain Company of Seattle has been visited by burglars. We congratulate them. There are not many grain companies that would attract one burglar, let alone four.

Senator Kenyon has introduced a resolution providing \$10,000,000 for the purchase and distribution of corn and seed grains to Russia. This looks like a good investment both in dollars and in humanity.

If this were not in truth a "United" States freight rate differentials between the Atlantic ports and the Gulf would cause as much trouble as transportation differences do between the states of central Europe.

Fancy wheat raisers of Montana object because they do not get a premium from local elevators. Why not consign their own wheat to Minneapolis and take the same chance that the elevator would have to.

From the way Canadian and American grain is working westward for transportation to Europe and the Atlantic Seaboard, it looks as though Panama would soon rival Detroit in the volume of grain passing its front door.

Christmas is the one day in the year that inspires us to rise above material considerations. The spirit rules the day, the flesh is of secondary importance. May your spirit be merry and your New Year a happy one. And, anyway, we're most of us alive, more or less.

Out of its defeat at the polls last month the Non-partisan League has issued with a new policy. It is going to stay out of politics and bend all its energies to the economic side

of its program. This promises to be even more expensive for the people of North Dakota (if they stand for it) than the brief sojourn into politics. They merely destroyed the credit of the state before, now they have a fair chance of breaking every individual.

Are the constituents of Senators Borah of Idaho, Robinson of Arkansas, Stanley of Kentucky, and Reed of Missouri going to allow them to throw a monkey wrench into the best little diplomatic machine that has been devised since we agreed on a boundary line with Canada?

The mere prospect of peace on the Pacific caused a greater recovery in foreign exchange on December 12 than had ever been known in one day. The best thing that could happen to this country would be a full recovery in value of the pound, the franc, the lira, the mark and the peseta.

Reductions in rates that have been made during the past year will be considered a part of the proposed 10 per cent reduction to be made January 1. Both eastern and southern grain shippers have already had a considerable part of their reduction and the balance won't help much, if any.

A non-political commission made up of practical grain and milling men is to be appointed by the new governor of North Dakota to make a survey of the elevator and mill situation in the state. We are interested in knowing how much was sunk in the mill that busted and the elevator that never operated.

The corn funds, made available through the War Finance Corporation, are being distributed rather slowly. There are a lot of farmers who tell the world their troubles, but when it comes to making a new loan, find themselves not so badly off as they thought. The farmer's continued disinclination to borrow unnecessarily is an encouraging feature of the times.

The co-operatives are good advertisers. A local paper in Ohio and exchanges everywhere copied an item to the effect that the Ohio Central Equity Exchange Association was making plans for building a 6,000,000-bushel elevator. Investigation showed that the elevator could handle 6,000,000 bushels during the course of a year. Quite a different matter. The first statement was absurd on its face, but the Association sure got publicity.

The Royal Enquiry Commission of Canada has written to the Governments of the United States and the Federal and provincial governments of Australia, asking their views on a conference to devise a system of marketing wheat that would eliminate fluctuation in price. All that such a conference would have to do would be to regulate the weather, adjust transportation, see that the world's buying power was undisturbed, and control the psychology of all trading elements. Aside

from this they would have nothing to do. The pity of it is that in all probability our Government and Australia will fall for the invitation, and then there is no telling what kind of a mess will come out of it.

Norfolk, Va., is agitating a bond issue of \$5,000,000 for water front development and the building of a large export grain elevator. Western shippers have for years contended that the Eastern Seaboard needed added facilities for handling grain. With the recent storage additions at Baltimore and New York and the project at Norfolk, it looks as if their prayers would be answered.

The Canadian grain statistics have been revised to conform with the census report, just out. There were 22,181,329 acres sown to wheat as against the previous estimate of 17,428,000 acres. The total yield on the revised acreage is now estimated at 308,925,000 bushels, or more than 50,000,000 above the former guess. Practically all the increase is in the northern part of the prairie provinces.

About one-half of the present depression is due to economic causes and the other half is due to cold feet. Men who go after business are getting it. A reader had a couple of oil engines last month that he was no longer using and placed an ad in our classified columns. He wrote the other day to cancel the ad as it had sold both engines. He ended with, "I consider this money well spent." It wasn't that he spent a few dollars in advertising that is important, but the fact that he didn't let pessimism get into his shoes. Keep your feet warm and smile and you will discover that the sunlight is just around the corner.

Latest reports show that there are 292 grain elevators in the country that have taken out licenses under the Federal Warehouse Act. Most of these licenses are in the Pacific Northwest, one operating company having taken 118, and another 68 licenses. Evidently conditions in the West are more favorable for doing business under Federal supervision. It may be that credit for stored grain is more difficult to obtain out there than in the Middle West. This appears to be the chief advantage of the license and most of the grain belt operators would rather depend on their individual credit and eliminate the troublesome reports.

It would take an entire issue of this magazine to chronicle all the extravagant statements, the absurd contortions of the truth, and the plain lies told by the leaders of the U. S. Grain Growers. The limit was reached by C. H. Gustafson recently in a debate at Blue Rapids, Kan., when he stated that "the cost of handling the grain through the Chicago Board of Trade alone is \$49,000,000 a year. There are 1,617 firms doing business on the Chicago exchange, and every one of them makes an average of more than \$30,000 a year." There are plenty of Chicago Board operators who would gladly exchange their \$30,000 for the salary Mr. Gustafson gets from the Grain Growers.



H. M. BROUSE
Cincinnati

NEWS OF THE TERMINAL MARKETS



W. M. BELL
Milwaukee

FIX MINIMUM RATE

Effective November 28, the minimum rate of commission charged on wheat handled on consignment on the Wichita Board of Trade, Wichita, Kan., was fixed at 1½ cents. Large shipments of wheat have been arriving at that market recently.

ELECTION AT OMAHA

At the election late in November on the Omaha Grain Exchange, Chas. H. Wright was re-elected president; S. S. Carlisle and Frank Taylor vice-presidents, and E. E. Huntley, treasurer. J. W. Holmquist, G. W. Miller and Frank C. Bell were elected new directors.

REDUCTION IN FEES

The fees for sampling cars, on the Chicago Board of Trade, have been reduced to 40 cents per car and 25 cents per 1,000 bushels into vessels. Weighing charges have been reduced to 80 cents on incoming cars, 70 cents on shipped cars and 80 cents on straight transfer cars.

GRAIN EXCHANGE AT SPOKANE

Grain dealers of Spokane, Wash., have organized the Spokane Grain Men's Association with the plan of forming it later into the Spokane Grain Exchange. About 20 grain firms are represented. Offices of the new organization are: Philip Benedict, president; J. W. Balfour, vice-president; H. C. Gemberling, secretary. Executive Committee: R. J. Stephens, M. B. Mikkelson, E. C. Warmouth.

CORN HAS DORMANT STRENGTH

Corn is on the eve of big receipts. War Finance Corporation is a tower of strength to holders of corn and oats. They are bending every effort to stimulate prices in these grains. Therein lies their hope of higher coarse grain values. Heavy corn feeding is likely with hog prices at present levels. Foreigners are attracted by low prices. When wheat advances the dormant strength in corn is easily seen. Oats visible is a drag and cash situation very dull.—*Southworth & Co., Toledo, Ohio. From Weekly Market Review of December 12.*

GRAIN BOARD ELECTS MEMBERS

The annual meeting of the Grain Board of the Boston Chamber of Commerce was held December 7. From a list of 20 names presented as candidates, 12 were elected to serve on the Board. The Board met December 13, and elected its chairman.

The following members were elected to serve one year: Alex. S. MacDonald, F. Elmer Fenton, William B. Hanna, Edward E. MacLeon, Forrest S. Smith, Henry P. Smith. For two years: Fred S. Colby, Herbert L. Hammond, Rodney T. Hardy, Arthur T. Safford, Warren G. Colby, H. P. Van de Bogert, Jr.

MORE BUSINESS WANTED

J. F. Zahm & Co., of Toledo, Ohio, say in Red Letter of December 8: Toledo is entitled to a larger business in wheat futures. It is the only market where the trading is in Soft Winter wheat and where practically one grade is the contract grade, although No. 3 Red Winter fine milling wheat is deliverable on contracts at 5 cent discount. Toledo stock of Soft Winter wheat here today is about 800,000 bushels. There are also 450,000 bushels of Spring wheat, making a total stock of 1,250,000. This compares with a stock in Chicago of 2,500,000; St. Louis, 2,500,000. If more millers and grain traders would use Toledo when buying or selling

futures the business would increase here, and our fluctuations would not be so severe as they have been at times. One thing is certain, if a purchase of December or May wheat is made here and the buyer stands for delivery, he knows absolutely what he is going to get, and if one sells these futures and intends making delivery, they know what they must deliver. We would like to see more orders coming this way.

BOSTON'S CHIEF INSPECTOR

Seth Catlin, for the past 18 or 20 years chief grain inspector at Boston, first became identified with the grain trade in 1874. At that time he was in the employ of the receiver of the Illinois Central Railroad at Chicago. Later on he removed to New York City where he was employed by the New York Central & Hudson River Railroad in the elevator department. A few years afterward he accepted a position as grain inspector of the Pro-



SETH CATLIN

duce Exchange, which connection he held for 20 years. He then resigned and went to Chicago, where he opened an office as a private grain sampler and superintended the loading of grain cargoes for exporters situated in Boston, New York City, Philadelphia and Baltimore. Not long afterward, Mr. Catlin was appointed official sampler by the Chicago Board of Trade. During his service in Chicago he inspected cargoes at Buffalo, Toledo, Omaha, Milwaukee, Duluth, Minneapolis, Itaska and other ports.

About five years after he went to Chicago, Mr. Catlin sold out his business and accepted the position of chief inspector of grain for the Port of Boston, and still occupies it. Mr. Catlin's father held the position of secretary of the Chicago Board of Trade in the early years of that organization. As Inspector Catlin's two sons are engaged in the grain trade in Boston, one will see that it runs in the family to become identified with it.

PLENTY OF WHEAT

E. W. Wagner & Co., Chicago, say in the Wagner Letter of December 13:

"North America has plenty of wheat for the present and bull ideas are long distance stuff. North American November and December wheat exports do not promise to be seriously large. The demand of 'save the farms' is met by a general

indifference that proceeds from belief there are more industries to help beside the farms. We are willing to bull corn 5 to 10 cents but the hog price and the raw material demand is not present.

"The corn market remains under influence of the 1921 crop of 3,151,000,000 and the record November 1, 281,000,000 on farms. Corn enters its January and February heavy marketing period with a 15 to 17 million visible—largest in one or two decades. The usual visible is only a few millions."

LARGER RECEIPTS

Receipts of corn have been large here and prices have been holding up well compared with other markets. Industries continue to be good buyers here and there has also been a big business done for shipment, both export and domestic. The country has been selling quite freely in Iowa, and advices of consignments are fair. A good portion of the corn arriving here now is being placed on old contracts. We look for receipts to continue free for some time to come.

Receipts of oats have been fair and values are holding up well. There have been quite a few worked for shipment both east and south. Country acceptances on bids have not been large.—*Muel-ler Grain Company, Peoria, Ill. Market Letter of December 12.*

GOOD DEMAND FOR GRAIN

We are having a good demand for grain of all kinds although receipts have been disappointing. There is quite a run of corn coming now which is finding a ready outlet and the way things look we could absorb even a larger volume.

The receipts of oats at no time are oppressive and in fact there is quite an urgent inquiry here right along from cereal mills who want choice oats and the other kinds are taken by shippers.

There is nothing in particular to say about wheat except that arrivals are practically nil. There is a little demand here right along although our shipping trade is temporarily very quiet.

We are anticipating a good run of business after the turn of the year and certainly would like to see it develop.—*E. P. Bacon Company, Milwaukee, Wis. Market Letter of December 12.*

GOOD DEMAND FOR SPOT CORN

Receipts of corn are now picking up here and country offerings are on the increase. There has been a fair to good amount for spot cars at prices about in line with western terminal markets. The roads in the East have been bad for several weeks and this prevents local supplies of corn going into consumption, resulting in an increased demand at terminals. We expect this demand to fall off sharply, in fact, there is every evidence now that the edge is off.

Oats seem to continue to drag and prices from western terminals show a variation of two and three cents per bushel on the same grade and test weight oats.

The wheat situation in our territory is rather peculiar. Flour is being offered to local dealers on the basis of 90 cents for No. 2 Red Winter wheat but most mills are paying one dollar per bushel. An increased movement is expected as soon as the roads are better. Baltimore market has been offering wheat to local mills in our territory for shipment from their market at less money than it can be originated at farther west of us.

The general industrial conditions throughout the

whole country, especially our territory, are, if anything, worse than they have been. There is nothing at this time that will lead us to believe that there is going to be any improvement for some months. The distributors and mills are all inclined to curtail their credit and from information and belief, do not think that the smaller consumers have the money to buy.—*Harper Grain Company, Pittsburgh, Pa. Market Letter of December 12.*

CHANGES IN MEMBERSHIP

Baltimore.—New members recently elected to membership on the Chamber of Commerce are: Geo. E. Simmonds, George E. Simmonds & Co.; John H. Gilea, III, John H. Gildea, Jr., insurance; Thomas E. Cottman, The Clarence Cottman Company; James E. Bennett, James E. Bennett & Co.; Irvin T. Hull, S. H. Ruth & Co.; J. A. Peterson, superintendent elevator W. Md. Railroad Company. The memberships of the following have been transferred: Maxwell C. Byers, Duane H. Rice, Henry E. Wack, Edward E. Reindollar, John H. Gildea, Jr., and Charles C. Gorsuch. Reported by Secretary James B. Hessong.

Chicago.—Memberships on the Board of Trade have been granted to Richard H. Upsall, Thos. D. Southworth, Wm. E. Harris, Joe. B. Palmer, Alba C. H. Cromer, G. A. Lauzier, Bruno Reinicke, Fred C. Hoose, and Adam G. Thomson. The memberships of E. S. Yeisley, Edw. J. Weber, T. P. Gordon, Richard C. Plater, Claude E. Campbell, Edmund W. Syer, H. E. Halliday, Chas. H. Lawrence and Alex D. Thomson have been transferred. Reported by Secretary John R. Mauff.

Duluth.—Carlisle Hastings has been admitted to membership on the Board of Trade and Sam Sharp Turney has withdrawn his on that exchange. Reported by Secretary Chas. F. MacDonald.

Indianapolis.—New members on the Board of Trade are: A. L. Blanton and F. W. Blanton of the Blanton Milling Company. Reported by Secretary William H. Howard.

Wichita.—H. A. Braunagel, N. E. Carpenter, A. W. Bennett and J. O. McClintock are new members on the Board of Trade. Reported by Secretary R. B. Waltermire.

INSTRUCTION IN GRAIN SORGHUM GRADES

Considerable interest has been shown at St. Louis, Mo., in the school now being conducted by the Federal Grain Supervision office in Chicago, under the direction of O. F. Phillips, chairman of the Board of Review, and B. A. Rothgeb. The aim of this school is to familiarize the grain inspectors and supervisors in the new grades on grain sorghums prepared by the Federal office, and so far adopted by nearly all the markets that handle any quantity of these grains. The grades are tentative at present, as they have not yet been formally adopted and put into effect under the Grain Standardization Act, but the instruction now being given by Mr. Rothgeb, who is one of the best posted men in the country on grain sorghums, is preparing the inspectors and supervisors in a manner that will bring about a uniformity in the grading of these more quickly than probably could be brought about in any other manner.

Last week St. Louis was represented in the school by Chas. Barron, Federal Supervisor; John Grischy, Assistant Chief Inspector of Illinois State Inspection Department, and Chas. Wilson, manager of the Merchants Exchange Sampling Department; T. M. Scott, secretary of Picker & Beardsley Commission Company, spent two days of the week with the class, although the term of each class is five days.

Mr. Scott is a member of the Grain Committee of the Merchants Exchange and also a member of Uniform Grades Committee of the Grain Dealers National Association, as well as being a large handler of grain sorghums in the St. Louis market. He returned home much enthused with the manner in which the teaching of the new grades is being carried, complimenting very highly, the work of the Grain Standardization office.

DOUBTLESS WENT AGAINST THE GRAIN

The members of the Kansas City Board of Trade, Kansas City, Mo., are, as a class, not without fortitude. Therefore when an order was sent out that commencing on a certain date in November, no member of the Board would be allowed on the floor unless duly signed vaccination certificates could be shown, the majority of the trade walked boldly up to the scratch. The vaccination order was the result of a slight epidemic of small pox in the city and the directors of the Board thought best to take no chances.

A story went the rounds that a certain doctor of Kansas City, who had speculated on the Board not wisely but too well, offered his services gratis for the purpose of inoculating the arm of the patient with the virus. This offer was enthusiastically accepted by the members of the Board. Very untoward events might have resulted had not the physician who would have naturally taken the job at so much per, made an investigation. This doctor seemed to have been justifiably piqued at having the job taken away from him nor could he understand how the other could work for nothing. As the other doctor was a quondam friend he obtained access to his medical cabinet and made the startling discovery that the vaccine to be used on Board members was for hog cholera. It is almost



AESCULAPIUS VISITS KANSAS CITY BOARD OF TRADE

needless to say that the operation was performed by the regular physician.

Up to date no cases have been reported of the malady having attacked any of the Kansas City Board of Trade members.

NEWS OF THE SOUTH

The cash situation on wheat in St. Louis for the past two months has been very dull—the big mills, as a rule, have been running on short time, many not running at all, and the mills that are in the habit of conserving their stock of local wheat have been running on that and using it up, which has made a very dull situation at terminal markets. The stocks of wheat that have been accumulated here and that ordinarily would work out along in October, are still on hand and probably will have to be carried over until well into January. The export situation has also been less, practically nothing doing in export wheat; Canadian wheat has been taken in preference on account of the price. It looks like the amount of wheat back in the farmers' hands is probably not more than 60 per cent of the normal supply at this time.

We have had fair runs of corn here and the market has been well maintained on account of the big export demand. So far, exporters have taken every bushel of corn they could buy and they are bidding almost spot table prices to the country to arrive. There is some little indication of this demand letting up today, as two of the big exporters at Kansas City and St. Louis were out of the market this afternoon. With good

weather we will have immense receipts of corn this week and it is our opinion that the market will work somewhat lower.

There has been a splendid demand here for oats right along and we expect to see the oats market work somewhat in sympathy with corn, but think there will be a fair demand for all of the arrivals, in fact we feel quite friendly to these oats.

The writer made a trip to the South and Southeast about three weeks ago taking a daylight run through Tennessee, Mississippi and Louisiana, and I found that the farmers there in that territory are in much better shape than they were last year. Last year they had but one crop of anything and that was cotton and they had their feed for the winter to buy; this year they have raised a short crop of cotton and a long crop of corn and hay, and have gotten a good price for their cotton and have feed enough to run them until the first of May without buying anything. I found this same situation to prevail throughout Alabama, Georgia and Tennessee, on my return trip. There is absolutely no demand in the South or Southeast for corn at the present time, nor do I think there will be for the next three or four months. The export situation seems to be flourishing and with the equipment for handling corn at New Orleans, that port will certainly take care of an immense amount of it without any congestion.

There is no trouble this year to get vessel space and I found it contracted for corn up to as far as March, and it is only a question of the physical handling of grain at New Orleans, as to how much can be poured into these vessels in the next 60 or 90 days. The foreigners are buying corn on account of the cheapness, in preference to the high price of wheat and the same conditions prevail at Mobile, only in a lesser amount on account of the limited facilities for handling grain. I guess the people of Mobile are more concerned in the handling of the Cuban and West Indies trade, where they have every facility for handling it and getting it loaded in the proper manner.—*Elmore-Schultz Grain Company, St. Louis, Mo. Market Letter of December 12.*

TERMINAL NOTES

J. E. Bennett & Co., of Chicago, have taken over the office at Cedar Rapids, Iowa, formerly operated by Simons, Day & Co.

Frank J. Cunningham is now managing the New York office of Simons-Shields-Lonsdale Grain Company of Kansas City, Mo.

S. J. McCaull of McCaull-Dinsmore Company, Minneapolis, Minn., left home recently for a six weeks' sojourn in California.

The Viehman Grain Company of Minneapolis, Minn., has bought the feed plant and elevator of the Culbert Milling Company.

The Levan & Boyd Company, grain and feed merchants of Philadelphia, Pa., has moved its general office into 591 Bourse Building.

Wm. O. Kennedy has been appointed manager to succeed P. W. Cashman, of the New York office of Thompson & McKinnon of Chicago.

The Fernandes Grain Company of Springfield, Ill., has purchased the elevators of E. B. Conover at Dawson, Elkhart and Kilbourne, Ill.

Jos. Simons, well known for years in Chicago grain circles, has reestablished his grain business in Room 49 of the Board of Trade Buildings.

J. M. Martin, formerly connected with the Brouse-Skidmore Grain Company of Cincinnati, Ohio, is now traveling for T. M. Dugan & Co.

Arthur H. Crary, surviving partner in the firm of Scott & Woodrow of Columbus, Ohio, will hereafter operate the business under his own name.

The Corn Products Refining Company expects to start its plant at North Kansas City, Mo., about February 1. It will grind about 20 cars of corn daily.

The president of the Baltimore Chamber of Commerce, Baltimore, Md., recently named Charles England, E. F. Richards, Fred A. Mayer, Robt. Ramsey and E. A. Slack as a special committee to pre-

sent the claims of that port should there be a movement towards readjusting the general freight rate schedules from Central Freight Association territory to the gulf or seaboard.

Frank M. Turnbull has become the Philadelphia representative of the Hall-Baker Grain Company of Kansas City, Mo. He has his office in the Bourse Building.

Norman P. Holland, for many years manager of the hay department of E. L. Rogers & Co., of Philadelphia, Pa., is now manager of the entire business.

C. V. Fisher, formerly head of the C. V. Fisher Grain Company of Kansas City, Mo., has become associated with the Wyandotte Elevator Company of that city.

M. M. Marks, formerly with the National Grain Corporation, has entered into the grain brokerage and commission business on his own account at New York City.

C. A. Terrill & Co., members of Chicago Board of Trade, have opened an office at 4615 Sheridan Road for a general brokerage business in grain, provisions, stocks, cotton, etc.

F. G. Sprague & Co., of Ft. Wayne, Ind., recently made an assignment for the benefit of creditors. It is stated that the liabilities of the firm amount to \$600,000 and the assets to \$200,000.

The Marshall Grain Company of Oklahoma City, Okla., has opened a branch office at Memphis, Tenn., known as the Marshall Brokerage Company. It is under the management of C. W. Friss.

The Curtiss Grain Corporation, one of the large grain firms of Buffalo, N. Y., went into the hands of a receiver December 5. The receivers named by the Court are Wm. A. Riley and M. M. Nowak.

The Lathrop Grain Company of Kansas City, Mo., has succeeded the Pierson-Lathrop Grain Company. A. R. Pierson, president of the concern, is retiring after 28 years on the Kansas City Board of Trade.

The Gray-Rosenbaum Grain Company of Seattle, Wash., has established Seattle as a bulk grain port for the first time, under its agreement to ship its wheat through the port's grain elevators to go abroad.

The New Orleans Board of Trade, New Orleans, La., has established, through its Grain Weighing and Inspection Department, a record of seals on

all cars arriving at the various public elevators at that port. This record, being taken by a disinterested party, will be of value to shippers in ascertaining responsibility on all claims for shortage, and will be available to any party on request.

W. L. Craig Grain Company has been formed at 718 Vancouver Block, Vancouver, B. C. as grain brokers. At present they are representing James Richardson & Sons, well known Canadian grain merchants.

The Terminal Grain & Elevator Company of St. Paul, Minn., has been incorporated with a capital stock of \$100,000. Officers are: C. E. Griffin, president; E. O'Connor, secretary; J. A. Gallagher, treasurer.

J. Frank Riley of John T. Fahey & Co., grain receivers and exporters of Baltimore, Md., returned home recently from a hunting trip through Canadian forests. One of the results of his prowess was the shooting of a large moose.

The N. Bawlf Grain Company, Ltd. has discontinued its Toronto office and Ontario is now being looked after from Montreal. D. C. Stewart, who represented the company in Toronto, will represent the company in Winnipeg, Man.

The Frank B. Clay Grain Company of Kansas City, Mo., has passed into the hands of a receiver. It is expected the receivership will be only temporary as the trouble was due to inability to realize on assets to meet pressing obligations.

J. D. Kent of the Des Moines Elevator & Grain Company has been elected president of the Des Moines Board of Trade, Des Moines, Iowa, succeeding L. L. McFarlin. R. W. Harper was elected vice-president, and L. W. Ainsworth re-elected secretary.

The Corn Products & Refining Company of Chicago and New York expect to have the refinery which they are building at North Kansas City, Mo., in operation by February 1. It was built at an estimated cost of \$6,000,000 and will manufacture syrups, glucose and corn oil.

J. Thordarson, Alberta manager of the N. Bawlf Grain Company, Ltd., has been elected by acclamation president of the Calgary Grain Exchange for the ensuing year. The other officials, also elected by acclamation, are: Arthur Pierson, vice-president, and D. O. McHugh, secretary.

TRADE NOTES

H. C. Malsness, special agent at Kansas City, Mo., for Sprout, Waldron & Co., of Muncy, Pa., has removed his offices from the first floor to larger quarters in Room 203 New England Building.

The Eikenberry Construction Company has succeeded the Corn Belt Engineering & Construction Company, specializing in the construction of grain elevators, mills and warehouses, with office in the Unity Building, Bloomington, Ill.

The Morse Chain Company of Ithaca, N. Y., whose silent chain has become especially popular with the grain industry, announces that its Philadelphia office has been moved to new quarters in the Fuller Building, No. 10 South Eighteenth Street.

C. A. Weaver of Minneapolis, Minn., northwest representative of Sprout, Waldron & Co., of Muncy, Pa., was recently elected a director of the Minneapolis Athletic Club Curling Association. A large club house is being built in which it is expected to hold international bonspiels.

L. A. Stinson Company of Chicago, has the contract for building a new grain drier complete for the Central Warehouse & Elevator Company of New Orleans. The Hess Warming & Ventilating Company is furnishing the drier. One of the principal features entering into the construction of the drier is the cooling which is to be done by refrig-

erated air, furnished by an ice machine of 100 tons ice capacity per day. The object of this is to overcome the difficulty heretofore experienced in cooling the grain with air at normal temperature during that part of the season when the mercury is very high.

The Cyclone Blow Pipe Company of Chicago, Ill., is mailing its friends a combination desk paper weight and mirror. It will serve as a reminder during 1922 that the company's Cyclone Dust Collecting System mirrors safety, economy and profitable operation in every small and large grain elevator plant.

P. F. McAllister has succeeded Ballinger & McAllister, engineers and contractors, builders of grain elevators, mills, driers, coal shutes, etc., at Bloomington, Ill. Mr. McAllister is a licensed engineer of wide experience and has designed and built very modern grain elevators in all sections of the country. The plant at Bloomington suffered an unfortunate loss from fire recently but was well insured and business is going forward as usual.

The Engineering Advertisers' Association of Chicago is now publishing a monthly bulletin in the interest of its members. The bulletin gives a digest of the speeches made at the various meetings and also includes other information and facts regarding the movement of goods from industry

to industry, personal notes, etc. The current copy includes an address by Kenneth Groesbeck, vice-president of the Harry Porter Company of New York City, on "The Baconian Theory of Advertising," which is well worth reading. The first issue contains no advertising, but in later editions a small amount of advertising will be accepted, as the Board of Directors have agreed to devote not over two pages divided into 10 spaces each to this publicity. This necessarily will limit the number of advertisers to 20, and this space is sold merely to meet the cost of publishing. We are advised that at the present time there are a limited number of extra copies of the "Bulletin" which will be sent upon request to the advertising managers of concerns selling technical or engineering products.

FUTURE TRADING LAW ENJOINED

The U. S. Supreme Court, on November 22, issued a temporary restraining order to prevent the Chicago Board of Trade from putting into effect the terms of the Capper-Tincher Law, and to prevent the Secretary of Agriculture and other officials from taking action against the Board for non-compliance with the Act. This injunction was issued upon the petition of John Hill, Jr., and others who have presented a bill to contest the constitutionality of the Act. The bill will be heard on January 3. The restraining order of the Court was as follows:

161—J. H. Hill, et al. appellants, vs. H. C. Wallace, Secretary of Agriculture, etc., et al.—Motion to advance herein is granted and the case is set for January 3, 1922, after the cases specially set for that day, and it is ordered, the appellees not objecting, that the Board of Trade of the City of Chicago, and its directors, appellees, are restrained from seeking or accepting from the Secretary of Agriculture, a designation of said Board of Trade as a contract market under the Act of Congress, approved August 24, 1921, entitled the Future Trading Act, or from admitting to membership in said Board any representative of any co-operative association of producers as required by said Act, or from modifying its rules on by-laws, as required by said Future Trading Act, in order to entitle said Board of Trade to be designated as a "contract market," and from otherwise complying with the terms of said Act prior to the final judgment of the court herein.

Also, during the pendency of said cause in this court and for 20 days after final judgment herein, the appellees, Henry C. Wallace, Secretary of Agriculture of the United States; David H. Blair, commissioner of internal revenue of the United States; Charles F. Cline, United States District Attorney for the northern district of Illinois, and John C. Cannon, collector of internal revenue for the first district of Illinois, and each of their successors in office, are restrained from collecting, or attempting to collect, by suit, criminal prosecution or otherwise, from appellants or any other member of said Board of Trade, any tax or penalty which may have been incurred under said Future Trading Act, or from taking during said period any other steps against said Board of Trade or any of its members to enforce or compel their compliance, or punish for noncompliance, with any of the provisions of said Trading Act.

This order is made up on condition that within 10 days herefrom the appellants execute unto the appellees herein, and file in this cause a good and sufficient bond in the sum of \$25,000, with sureties to be approved by the clerk of this court, and conditioned that the appellants will promptly pay any and all damages which may be suffered by the appellees herein or any of them by reason of the granting or continuance of this order, if it is ultimately adjudged that the said Future Trading Act is a valid act.

On December 12 the above restraining order was modified upon motion of the attorney for the appellants, the modification providing that the Chicago Board of Trade shall be designated a contract market which will permit it to transact business in futures without complying with other provisions of the law, or being held liable to the tax of 20 cents per bushel which other than contract markets have to pay.

CANADIAN GRAIN INQUIRY IN COURT

After making a general muddle of its work for some months, the Royal Grain Inquiry Commission of Canada was enjoined from further activities by a Manitoba court. The case was taken to the Manitoba Court of Appeal and there the injunction was dissolved.

Recently Hugh Phillips, solicitor for the North-

west Grain Dealers Association, and H. J. Symington, representing the United Grain Growers, Ltd., asked special leave to appeal to the Supreme Court of Canada. The Court of Appeal has the matter under advisement, but as the question involved in the case rests upon the constitutionality of the appointment of the Commission no doubt the appeal will be allowed.

CANADIAN GRAIN VIA PANAMA

The Port of Vancouver is coming into its own as a great grain shipper. Wires are being received daily from international grain brokerage firms, with head offices in New York, concerning the possibility of being able to get cargo space out of Vancouver, via the Panama, for export. So far these inquiries have asked, as an average, for space of 30,000 tons of grain a month. The New Yorkers have purchased heavily of grain from the Alberta Pacific Elevator Company, and they have been advised that Vancouver can provide them all the cargo space they desire at a rate approximately \$6 a long ton from the Port of Vancouver to Liverpool. At least 50,000 tons of wheat have been booked from the Port of Vancouver for the United Kingdom and for Japan for November, December and January shipments. The Japanese grain is carried by short ton of 33 bushels and 20 pounds to the ton; the U. K. orders are long tons 37 bushels, 20 pounds to the ton.

There are, at present, 200,000 bushels in the Government elevator on the Government dock in Vancouver; 100,000 bushels have already passed through the plant, and there are orders listed for 1,000,000 more for the United Kingdom and 500,000 more than Japan. U. K. wheat is shipped in bulk; Japan wheat shipped in sacks. A considerable quantity of the wheat for Japan is sacked at Calgary, and this sacked grain goes direct to the waterfront warehouse and is loaded on ships without entering the elevator.

It is stated that the first shipments via the Panama have reached their destination in excellent condition and free from sweat. Very considerable interest, it is said, has been aroused in grain circles in Liverpool in connection with the new route.

SPECULATION WILL CONTINUE

Concerning occasional rumors that the new Future Trading Act, which goes into effect December 24, will prevent legitimate speculation and trading in grain futures, Secretary of Agriculture Wallace who is charged with administering the Act, said recently that such rumors were wholly without foundation. Such gambling transactions as privileges, bids, offers, puts and calls, etc., will be discontinued but the law does not interfere with the ordinary dealing on the board of trade or with ordinary speculation in the buying or selling of contracts for future delivery. The only condition in order to be free from the tax imposed by the law is that such contracts must be made through a market which meets the requirements of a "Contract Market" under the terms of the Act, and is recognized as such by the Secretary of Agriculture.

The grain exchanges at Kansas City, St. Louis, Minneapolis, Duluth, Milwaukee, and Toledo, and the Open Board of Trade at Chicago all have applied for recognition as "Contract Markets" and all have met the prerequisite legal obligations. In some cases it was necessary to make some changes in their existing rules and regulations, but these changes have been made or satisfactory assurances have been given that they would be made. Consequently all of these exchanges are recognized as "Contract Markets" and people who have been in the habit of trading and speculating on these exchanges need have no fear of interference. Future trading can be continued without interruption. If there should be evidence of undue manipulation by some large dealer that would be required into as authorized by the law.

In the case of the Chicago Board of Trade, which

is the largest grain future market in the country, action concerning it is temporarily suspended because of a suit brought by a few members of this Board of Trade to test the constitutionality of the law. Judge Landis dismissed the complaint but on appeal was taken from his decision and the matter is now before the Supreme Court. An application for modification of the first restraining order was submitted and the order is modified as asked, so there will be nothing to prevent the Chicago Board of Trade from being recognized as a "Contract Market," and it is so designated.

Secretary Wallace expressed appreciation of the cordial way in which the officers of the various grain exchanges are co-operating to make the enforcement of the law constructive and helpful to legitimate trading.

"JIM DUNN"

BY HOOZUS

Jim Dunn, who runs the elevator at Sperry Sid-ing, says: "When ya're a'talkin' about sacks, it puts me in mind o' a deal I had with a feller named Paisley, back in th' '90's—an' that's when I quit a'loanin' sacks.

"This here Paisley come in an' borried 50 sacks an' he said he'd haul me 'bout 100 bushels o' wheat. Well, th' sacks never come in, nor th' wheat neither, an' after while I found out he'd hauled it t' my compet'ter.

"I drives out t' his place, an' I says to him, I says: 'Paisley, didn't ya borry some sacks o' me?' And, Paisley, he kinda grinned an' says: 'Why, I ain't sayin' I did, 'r I ain't sayin' I didn't,' he says.

"That made me s' danged mad I had t' step on my right foot t' keep it on th' floor; but I says t' him, I says: 'Paisley, don't ya know sacks is worth money?' An' he says: 'I reckon they is.' 'Well,' I says, 'if them sacks don't come in soon, an' come in bulgin', ya're goin' t' jail for obtainin' money under false pretents—for that's virchilly what it amounts t'.'

"Well, th' next day, them sacks come in, an' they was all filled with number two wheat, an', Paisley, he's been a' bringin' me his stuff ever since."

LITTLE TIPS FROM "JIM DUNN"

When th' grain is a'drivin' past your door t' your compet'ter; either ya're all wrong, 'r your compet'ter ain't all right. Find out which.

Allus keep a good clear record o' your loadin' out weights. It'll take all th' talk out o' a claim agent.

Don't never let no dust accum'late in your elevator. A dirty house may clean ya out.

Don't never loan bags t' no farmers. If ya get hankerin' t' contribute t' somethin', there's th' Red Cross an' such.

It don't pay t' plug a car o' grain. It only makes a magnet for th' inspectr's sticker.

Don't never handle stuff for nothin'. It's like havin' a loose clutch: it uses energy, but don't get ya ennywhere.

Make sure where th' driver is when ya're weighin' a load. Some o' them get pretty shifty 'bout that time.

When ya're testin', don't never have th' tester a'settin on a vibratin' floor. The' wheat'll settle lower, an' ya'll have t' settle higher.

DWARF WHEAT

When he was professor at the University of Saskatchewan several years ago, G. H. Cutler noticed the occurrence of a dwarf plant 9 inches high in a field of Marquis wheat. This occurrence of dwarf specimens in wheat has been observed before and the phenomenon had been studied by Far-ner in Australia. Dwarf plants among oats have also been observed. The dwarf Marquis wheat plants, which Prof. Cutler studied in Saskatchewan in a series of experiments, were well defined. They were 9 inches high, while the normal tall plants were 40 inches high. In his experiments, he

succeeded in obtaining in subsequent generations, 100 per cent of dwarfs, while the tall wheat plants produced exclusively tall normal plants. The plants intermediate between the dwarfs and the tall plants, produced 25 per cent dwarfs, which is the Mendelian ratio.

SECRETARY WALLACE ON GRAIN MARKETING

In his annual report to Congress, submitted on December 12, Secretary Wallace has the following to say in regard to grain marketing:

STUDIES IN GRAIN MARKETING

In the marketing of grain, investigations are necessary on the milling and baking qualities of wheat and other grains for the purpose of determining the relation or intrinsic values of such factors as test weight per bushel, gluten content, color, texture, general appearance, different forms of damage and mixtures of various impurities, and treatment to which grain is subjected in handling.

All this is necessary in order not merely that grain may be properly graded but also that the most suitable kinds of grain may be bred, introduced and grown. This work has the profoundest effect on farm operations.

The cereal breeders in the Department, particularly those engaged in the breeding of wheat, work with those engaged in the studies of grain markets and standards. In order that a new variety may be readily acceptable to the farmer and to the grain trade it must be determined before it is distributed that it meets the demand of the market. Otherwise it would be no advantage but an actual detriment to introduce a new variety of wheat which yields more than the variety a farmer is now growing but which has a poorer milling quality, so that he would receive a lower price for it on the market. Therefore, the plant breeder and the market specialist must work together to see that only those varieties are distributed which are at least as good as the varieties now generally grown.

All along the line there needs to be the closest co-operation between Department scientists who are familiar with varietal adaptation and the rapid changes taking place in the varieties grown by farmers and those who have to do with marketing and particularly those concerned in formulating and administering grain standards. The rapid increase in the growth of Red Durum wheat made it necessary to introduce new standards for that class of wheat.

Diseases play an important part in determining the market grade and value of cereals. The presence of smut in any considerable quantity is always noted in grading wheat and the price materially reduced because of it. The shriveling of wheat caused by rust and the presence of moldy and rotten ears and spoiled kernels in corn, due to corn rot and other diseases, materially affect the grade and market value of those grains. Therefore the work of research specialists, either in developing methods of controlling the diseases or in producing resistant varieties, is of importance not only to farmers but to the grain trade and to consumers. It is necessary that the biological research workers be closely in touch with those who are studying grain marketing and grain standards, so that the latter may be advised of outbreaks of new diseases or the occurrence of extensive epidemics of diseases already well known.

Crop rotation and farm management affect the presence of mixtures of other grains and of weed seeds and are therefore important factors in determining the grade of grain sold by farmers. Practically every phase of research has its bearing upon marketing and benefits both producer and consumer.

GRAIN EXCHANGE SUPERVISION

The Future Trading Act imposes a provision tax of 20 cents per bushel on future trading exchange transactions known to the trade as "privileges," "bids," "offers," "puts and calls," "indemnities," or "ups and downs." It also provides for a tax of 20 cents per bushel upon grain sold for future delivery, except when the seller is the owner or the

grower of the grain, or the owner or renter of land on which it was grown, or an association of such owners or growers, or owners or renters of land, or when such contracts are made by or through a member of a Board of Trade which has been designated by the Secretary of Agriculture as a contract market. It provides that all such contracts must be evidenced by a memorandum in writing containing essential information. The Secretary of Agriculture is authorized to designate boards of trade as contract markets under certain conditions set forth in detail in the law, which conditions provide for adequate Government supervision of such markets. The Secretary of Agriculture is authorized to make such investigations as he may deem necessary concerning operations of boards of trade and may make rules and regulations calling for the information necessary to make such investigations.

Under this Act it should be possible to make a thorough study of the operation and effect of future trading in grains, and it is hoped that after a time this information may make it possible to do away with unfair manipulation in prices of grains if such is found to exist.

DOMESTIC EXPORTS OF BREADSTUFFS

Below are given the latest figures supplied by the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce covering our exports of the principal breadstuffs by countries for the month of October.

EXPORTS FOR OCTOBER, 1921

Countries—	Corn Meal and Corn				Wheat bu.	Wheat Flour bbls.
	Barley bu.	Corn bu.	Flour bbls.	Rye bu.		
Azores and Madra Is.						53
Belgium	131,758	59,186	685		1,120,563	5,365
Denmark	188,999	141,413		29,999	8,018	57,892
Estonia						5,270
Finland				120,994		26,895
France	163,070	42,867	925		968,387	4
Germany	9,990	379,107	8,914	170,376	525,332	94,006
Gibraltar						2,230
Greece						11,058
Italy				94,898	5,913,912	6
Latvia						25,794
Malta, etc., Islands						6,707
Netherlands	145,127	862,279	3,091	132,759	1,386,096	71,814
Norway			235	394,690		79,521
Poland and Danzig						47,431
Russia in Europe			7,162		201,661	42,613
Spain					772,000	
Sweden	60,633	16,996			24,443	11,881
Turkey in Europe			2,964		70,675	119,137
England	1,303,072	163,588	5,789		4,016,378	141,889
Scotland	45,666	823	1,310	53,957	56,000	87,454
Ireland		42,856	286		353,375	50,923
Bermuda		1,927	190			13
British Honduras		42	6			2,227
Canada	25	5,753,511	7,518	972,561	385,943	2,674
Costa Rica	12					6,522
Guatemala			4			7,574
Honduras			9		2,000	2,961
Nicaragua			358	2		2,584
Panama		1,145	185			6,830
Salvador						6,147
Mexico	32,976	1,525,910	18		270,618	32,637
Newfoundland, etc.			144	1,320		1,771
Barbados			5,194			2,018
Jamaica		3,160	1,906		100	10,934
Trinidad and Tobago	27		149			1,352
Other British W. Indies		1,674	3,991			4,378
Cuba		193,252	3,067			8,103,109
Virgin Islands		872	841			2,425
Dutch West Indies		38	5,780			1,968
French West Indies		1,510	5			10,477
Haiti					4	18,506
Dominican Republic			123			6,825
Argentina			214			
Bolivia						2,711
Brazil			246		166,661	35,132
Colombia		20	9		5,368	2,489
Ecuador						7,550
British Guiana			14	286		888
Dutch Guiana						1,613
French Guiana						1,307
Paru					410,724	7,236
Uruguay			71			
Venezuela						11,909
China		8	112		33,334	37,159
Kwangtung, leased terr.						21,310
British India					270,675	
Dutch East Indies						6,425
Greece in Asia						19,901
Hongkong						142,546
Japan		23,937			1,343,499	47,927
Palestina and Syria						19,135
Russia in Asia			11			296
Slam						4
Turkey in Asia						42
New Zealand			57			
French Oceania						40
Philippine Islands		4				33,868
British West Africa						5,326
British South Africa					18,700	800
British East Africa				3		10
Canary Islands						1,023
French Africa						1,226
Libaria						105
Morocco						13,350
Portuguese Africa		40	22			753
Spanish Africa						3,970
Egypt			572		37,333	9,232

Total quantities—Barley, 2,082,255 bu.; Corn, 9,216,691 bu.; Cornmeal and Corn Flour, 63,272 bbls.; Rye, 1,970,234 bu.; Wheat, 18,361,807 bu. Wheat Flour, 1,556,578 bbls.
Total value—Barley, \$1,477,076; Corn, \$5,478,676; Cornmeal and Corn Flour, \$220,566; Rye, \$1,843,497; Wheat, \$23,595,397; Wheat Flour, \$9,758,939.

BUSHELS OF OATS IN A CONICAL PILE

BY N. G. NEAR

According to Airy's experiments, made in 1897, the angle of repose of oats weighing 28 pounds per cubic foot and loosely filled is 28 degrees. He gives the tangent of the angle as 0.532.

This chart, therefore, has been based upon Airy's findings, upon the fact that one bushel equals 2150.42 cubic inches or 1.244 cubic foot, and upon the formula

Total bushels equals $0.1053 \tan^2 A D^3$
Where A equals the angle of repose in degrees;

And D equals the diameter at the base of the pile in feet.

For example, using the chart, How many bushels of oats in a conical pile the diameter of whose base is 20 feet?

Find the 20 in column A and simply glance across to column B and there's the answer—very close to 450 bushels.

Substitute in the formula and you will find that the chart is pretty accurate and much quicker than the "longhand way."

Of course, this chart is not absolutely accurate because the angle of repose for oats is not an absolute constant. The angle varies slightly with the weight of the oats per

cubic foot and with the roughness or smoothness of the surface as the case may be. The chart will be found extremely handy however to the man who wants to estimate pretty closely and quickly the number of bushels of oats in any conical pile.

By substituting the value of the tangent of the angle in the formula we can reduce the formula for oats to this simple equation:

Total bushels of oats in a conical pile equals $0.057D^3$.

MAINTAINING SEAL RECORDS AT TERMINAL MARKETS

BY OWEN L. COON

Maintaining of proper seal records by terminal markets is a matter of the greatest importance in the handling of claims for loss in transit of grain. Certain terminal markets maintain complete seal records, showing the seals of the car on arrival at destination, the seal that is broken by the grain sampler when he enters the car, and the seals on the car when it arrives at the unloading elevator.

Some markets, while maintaining this seal record which is so essential in the handling of grain claims, do not put it on their car reports and send it back automatically to the shippers in the country. When this is not done, it is necessary to write to the weighing department at destination to get such a seal record and as the average country shipper does not believe that such a record is maintained when it is not sent back to him, he does not write for it, and in many cases fails in the collection of his grain claims because he cannot show a defective seal record, when probably one exists.

In this regard, it is very pleasing to note that effective December 1, the New Orleans Board of Trade established a record of seals on all cars arriving at elevators at that port. In view of the large amount of grain handled at terminal markets, it seems that such of them as do not send back such information to the shipper, might follow such a practice, thereby placing in the hands of anyone who handles claim for the shipper, either an outside attorney, or local attorney or the shipper himself, might have in his possession automatically that evidence in reference to seal records that is so important in the proper handling of grain claims.

WISCONSIN'S corn crop was the largest ever raised in that state, 91,080,000 bushels. This com-

pares with a five-year average of 59,863,000 bushels. The state's wheat crop, however, is only about half the average, 3,071,000 bushels.

GENERAL CROP SUMMARY

Crop conditions for the last half of November are covered in reports received by the Bureau of Markets and Crop Estimates, United States Department of Agriculture, from its field agricultural statisticians in the different states.

Corn. The husking of the corn crop is about completed throughout the North Central or leading corn-producing states. The yield is generally good, but the quality is being damaged considerably by the corn ear worm and mold. The harvesting of the late crop is nearly completed throughout the Gulf States, and good yields of high quality are reported.

Winter wheat and rye. Winter wheat is entering the winter in good condition throughout the North Central States. The condition continues to deteriorate in southern Nebraska and Kansas due to drought and is generally poor. Rain has broken the drought in Texas during the past week, but much more moisture is needed. The condition in Washington has been benefited by recent rains and snows. Winter rye crop has made vigorous growth and is generally in good condition.

Live stock, hay and pastures. All classes of live stock are generally in good condition. The hog-cholera situation has improved considerably throughout the North Central States, and is now under control. The feeding of new corn is causing some trouble among horses and cattle in Illinois, but the situation is not serious.

Meadows and pastures are still furnishing some food throughout much of the central belt of states from the Atlantic to the Pacific Oceans, due to the mild autumn. Ranges are in good condition in the far western states, and have generally been benefited by recent rains.

EXTREMES IN OAT PRICES

Soil Products Bulletin No. 6 of the First National Bank in St. Louis gives the extremes of low and high prices for oats (in the St. Louis market) for 32 years, showing the months in which extremes were reached as follows:

Year	Yearly Range No. 2 Mixed Oats	Months the Prices were reached	
		Lowest	Highest
1890	\$.019 1/4 @ \$.046	January	November
1891	.26 1/2 @ .57	September	April
1892	.27 1/2 @ .35	October	August
1893	.22 1/2 @ .33 1/2	August	February
1894	.27 1/4 @ .50	January	June
1895	.16 1/2 @ .31	December	January
1896	.15 @ .21	June	August
1897	.16 1/2 @ .23 1/2	February	December
1898	.22 @ .33 1/2	August	May
1899	.21 @ .30	August	January
1900	.20 @ .26 1/4	August	March
1901	.23 1/4 @ .50	January	December
1902	.26 1/2 @ .59	August	July
1903	.32 1/2 @ .54	March	June
1904	.30 1/4 @ .44	December	May
1905	.25 1/2 @ .34 1/2	September	July
1906	.28 1/2 @ .40 1/2	March	June
1907	.35 @ .52	January	October
1908	.45 1/4 @ .57	October	July
1909	.34 1/2 @ .60 1/2	August	May

No. 3 White Oats

1910	\$.030 @ \$.050 1/4	October	January
1911	.30 @ .50 1/2	March	July
1912	.30 1/2 @ .59	August	April
1913	.31 1/2 @ .44 1/2	March	September
1914	.34 1/2 @ .52 1/2	August	September
1915	.33 @ .61	August	March
1916	.37 1/2 @ .59 1/2	June	November
1917	.53 @ .84 3/4	February	July
1918	.67 @ .96 1/2	August	March
1919	.58 1/2 @ .86 1/2	February	December
1920	.46 1/2 @ 1.21 1/2	November	June
*1921	.29 @ .50	August	January

*From January 1 to December 1.

From the table it will be noted that every month in the year is represented in the highest price column. Lowest prices, however, never occurred in April, May or July. The yearly range in the old days was never very large, but 1920 showed a difference of 75 cents.

Soil Kings Crowned at International

Grain and Hay Show Best Ever Held—Corn and Wheat Championships Move to New States

IT WAS the greatest grain show ever held. This was the unanimous verdict of judges, government experts of the United States and Canada, and agricultural educators at the conclusion of the Third International Grain and Hay Show held in connection with the International Livestock Exposition in Chicago, November 26 to December 3.

Six thousand samples—twice as many as last year—covered two floors at Dexter pavilion. Many states were represented with exhibits graphically setting forth the agricultural characteristics of the various districts. The thousands of entries of corn, bread grains, hay and seeds from nearly 40 states and the Western Canadian provinces were attracted by the \$10,000 in premiums offered by the Chicago Board of Trade in the interest of better crops.

Titles were wrested from former kings of the soil and new kings were crowned. Most coveted honors of the big show went to J. W. Workman of Maxwell, Ill. He is the new Corn King of the world. His 10-ear sample swept the field for the grand championship. It is the first time Indiana has lost this title. It is also the first time that Yellow corn has won at the International. The judges declared the sample shown by Workman was the best ever exhibited. It was Reid's Yellow Dent variety. C. E. Troyer, Wabash County, Ind., won last year with 10 ears of White, taking the title from Peter Lux of Shelbyville, Ind., who had won with White the year before.

Best single ear of the show also came from Indiana. Edward A. Lux, Waldron, with a White ear of wonderful quality, took this honor from J. E. Mummert, Fulton County, Ill., who won last year with an ear of Yellow. In the single ear class by regions the winners are M. Roman, Shawano, Wis.; L. M. Scott, Fairmont, Minn.;

the 1919 Corn King, won first position. With his 10-ear sample he competed with Eugene Troyer, son of C. E. Troyer, last year's corn champion, and 500 other members of boys clubs who, under a new division, were entitled this year to match skill for special Board of Trade awards. "Our name is Lux, but farm sense and not Luck win our prizes," said the boy with a grin. "I won these two ribbons in Indiana state contests for boys. I



CHAMPION CORN AND TROPHIES

Left to right: Best 10 ears raised by boy in 1921; best 10 ears raised in 1921; best single ear raised. Above: Trophies emblematic of corn, wheat, and oats championships.

knew I could win here." His 10 champion ears of Johnson County White were picked from an acre that yielded 101.6 bushels. Regional winners in the junior corn contest are Theo. Peterson, Cokato, Minn.; John D. Quiring, Mountain Lake, Minn.; Eugene Troyer, La Fontaine, Ind.; Frank Lux, Shelbyville, Ind.; George Hoffman, Jr., Wiff, Colo.

In the 10-ear Yellow class the following won first places in their respective regions: John Hen-

W. Jewett, Jr., Mason, Mich.; White Spring, regions one and six, T. A. Sammis, The Dalles, Ore.; Soft Red Winter, Arthur W. Jewett, Jr.; Hard Red Winter, W. M. Murane, Columbus, Mont.; Hard Red Spring, G. W. Kraft, Bozeman, Mont.

Canada did not let the oats championship get away. John W. Lucas of Cayley, Alta., won the sweepstakes and retains his title. His entry was a new variety called Victory. It tested 46.4 pounds to the bushel. It was planted from seed obtained from the Canadian Government Experimental Station. Lucas won last year with a variety termed Abundance. Lucas says he is a "farmer by adoption." He shatters the old theory that the most successful farmers are brought up on the farm. "I was born and reared in the city," he said as he fondled the silver cup that goes with the title. "A few years ago I heard the call of the Canadian West.

"How much oats do I raise? Well, this year I had about 120,000 bushels. My record is 139 bushels on one acre. For wheat I have had 66 bushels." Lucas had won oats sweepstakes at international shows in El Paso and Kansas City. In 1919 took the world championship title from J. S. Fields of Regina, Sask. Lucas is situated in region one. In the other regions victories for oats went to Arnold Rutz, Beaver Dam, Wis.; W. J. Irving, Blairsburg, Iowa; Rolland Conlee, Lowder, Ill.; C. S. Looney, Winchester, Tenn., and Otto Swedlund, Fleming, Colo.

Irving Beck of South Manitou Island, Mich., won the rye championship with George Hutzler of the same place, second. R. A. Chisholm, Del Norte, Colo., was first in the two-rowed barley class, and Carl Rosenberg, Bozeman, Mont., first in the six-rowed class.

Never before, declared the judges, has hay of such high quality been exhibited. Last year this exhibit was small. The number of entries this year was three times as great. The special award for the best sample went to Otto Wolf, La Crosse, Wis. He won with Red Clover. The best Timothy was entered by Arthur W. Jewett, Jr., Mason, Mich.; Alfalfa, George Baier, La Crosse; Kaffir, W. E. Pigott, Wichita, Kan., and Milo, Lillian M. Bieri, Oneida, Kan.

Roy Lee Claypool, Walnut Grove, Mo., exhibited the best cow peas, and Frank Casper, Rockland, Wis., the best field peas.

In the small seeds division the following took the prizes: Red Clover, N. McGill, Buhl, Ida.; Sweet Clover, Charles Franks, Warren, Minn.; Alsike



THE KING IS DEAD, LONG LIVE THE KING

Left to right: Peter Lux, Shelbyville, Ind., Grand Champion 1919, whose son, Frank, is Junior Champion this year; C. E. Troyer, LaFontaine, Ind., Grand Champion, 1920; Edw. W. Lux, Waldron, Ind., single ear championship, 1921; J. W. Workman, Maxwell, Ill., Grand Champion 1921.

Ellsworth Bailey, Ottumwa, Ia.; Edward A. Lux, Waldron, Ind.; J. W. Scott, Gallatin, Tenn.; and Otto Swedlund, Fleming, Colo.

For Flint corn, open to regions one and two, A. C. Vubert, South Windsor, Conn., and Robert F. Addis, Middletown, Conn., took first honors.

Sweepstakes in regions for 10 ears of corn were awarded to John Henderson, Cokato, Minn., regions one (Yellow); T. R. Thorpe, Beloit, Wis., region two (White); W. J. Ulrey, Attica, Ind., region three (Yellow); J. W. Workman, Maxwell, Ill., region four (Yellow); S. G. Rogers, Gainesboro, Tenn., region five (White); W. S. Sonneman, Huxtun, Colo., region six (Yellow). Frank Lux, 13 years old, is the new Corn Prince. In the junior corn contest, the lad, who is the son of

derson, Cokato, Minn.; J. Emmett Brunker, Blue Mounds, Wis.; W. J. Ulrey, Attica, Ind.; J. W. Workman, Maxwell, Ill.; E. S. Burt, Benton, Ia.; W. S. Sonneman, Huxtun, Colo. In the 10-ear White class: Raymond Brown, Wilder, Ida.; T. R. Thorpe, Beloit, Wis.; M. H. Thornburg, Winchester, Ind.; Ora Bennett, Browning, Mo.; C. G. Rogers, Gainesboro, Tenn.; Lee Reaney, Grand Junction, Colo.

America wrested premier wheat honors from Canada. The championship title now rests upon George Kraft of Bozeman, Mont., who won over J. C. Mitchell of Dahinda, Sask., who had held the title for two years and who was runner-up this year. Mitchell lost this year only because of the smaller kernels and duller color of his wheat. It

December 15, 1921

Clover, M. A. Thometz, Twin Falls, Ida.; Alfalfa, Grafton & McNaughton, Brooks, Ala.; Timothy, P. Mickelson, Donnelly, Ida.

Judges declared that the improvement of all classes of exhibits since last year clearly indicates the growing importance of the show, in which all leading crop improvement associations, farmer groups, agricultural colleges and government agricultural bureaus are co-operating. W. Q. Fitch, Purdue University, assistant superintendent of the show, said it had become "a permanent institution whose future success is assured." This is the third year that the Board of Trade has posted the \$10,000 premium list, thus making the success of the show possible.

The two illustrations of the state exhibits show what a change has come over this class of display. The Louisiana exhibit is typical of the old school which was purely decorative in character. The North Dakota exhibit, typical of most of the state displays, makes no pretense of artistic arrangement and beauty, but is highly educational, giving practical pointers to all who are now farming in that commonwealth or intend doing so. This new spirit detracts from the general appearance of the show, perhaps, but adds greatly to the practical value which visitors get from it. No one could leave this great show without new inspiration and new ideas.

In spite of the hardships which many farmers have undergone this year the attendance was enor-

abnormal changes due to the war in crop acreages shown in the census report for 1909, upon which the estimates for the succeeding 12 years were based. Complete census reports for a few states are not yet published.

TO FINANCE THE CORN CROP

The War Finance Corporation announced last month that an advisory committee would be appointed to work out methods of financing growers of corn and feeders of livestock. Our large corn surplus and its low price gave rise to this move. The committee has now been appointed as follows:

Warren T. McCray, Governor of Indiana, Indianapolis, chairman; E. T. Meredith, publisher of *Successful Farming* and former Secretary of Agriculture, Des Moines, Iowa, vice-chairman; J. R. Howard, president American Farm Bureau Federation, Chicago; Edward Chambers, vice-president, Atchison, Topeka & Santa Fe Railroad, Chicago; Alexander Legge, general manager International Harvester Company, Chicago; Charles Brand, Urbana, Ohio; Lloyd S. Tenny, assistant to the chief, Bureau of Markets and Crop Estimates, Department of Agriculture, Washington, and C. H. McNider, First National Bank, Mason City, Iowa.

After a conference with the War Finance Corporation, the following statement was issued:

"The committee will endeavor to obtain the cooperation of the banking organizations and bank-

THE GRAIN RATE SITUATION

The Western Grain Rate Case is not settled yet and bids fair to develop into one of the broadest inquiries ever undertaken by the Interstate Commerce Commission.

The Commission suggested a cut of half the advance which has been made under Exparte No. 74. Instead of complying with the suggestion, the railroads ordered a cut of 10 per cent. The Commission immediately issued a peremptory order compelling the cut they had suggested in the first instance to become effective November 20. That did not settle the matter, for the railroads petitioned for a rehearing under the plea that the cut ordered would be impossible under Section 15-A of the Interstate Commerce Act. They offered as a substitute for the order, to make a general reduction of the 10 per cent on all farm products and throughout the United States, instead of on grain, grain products and hay in western and mountain territory only.

On November 29 the Commission amended its order for a general investigation (Docket No. 13293) by adding "And also to determine what will constitute a fair return from and after March 1, 1922, under Section 15-A of the Interstate Commerce Act." While this investigation has nothing to do with the Western Rate case, formally, it opens up the entire rate structure to include grain and hay rates. At the same time the Commission



NORTH DAKOTA PRESENTS PRACTICAL INSTRUCTION



LOUISIANA STATE EXHIBIT

mous and all through the day and evening. The stock attracted thousands of course, but throughout the week the interest in the grain and hay exhibits was sustained and it is confidently believed that the next year will show even more entries. This year the junior corn contest was an added feature, perhaps there will be other novelties added later.

DECEMBER CROP REPORT POSTPONED

The date of issuance of the December crop report giving latest acreage, yield per acre, and production figures for staple crops in 1921 and revised figures for 1919 and 1920 has been changed by the Secretary of Agriculture from December 15, Wednesday, to December 28, 1921, at 4 p.m.; and the date for the issuance of the estimated acreage and condition of fall sown wheat and rye has been changed from December 17, Thursday, to December 29, at 12:30 p.m. This postponement of dates is made to enable the Crop Reporting Board to complete the work of revising the acreage, yield per acre, production and valuation figures for the principal crops in 48 states for the years 1919, 1920 and 1921, on the basis of the last census. The delay is made necessary by the enormous amount of work involved in checking the crop estimates for 1919 with the census data for that year and making the necessary revisions of the 1920 and 1921 estimates. The reconciliation of the crop estimates and census figures for 1919 is especially difficult because of the change in date of taking the census, changes in the form of the census schedules, and

ing institutions generally throughout the corn belt for the purpose of providing adequate financing for the orderly marketing of corn and the feeding of livestock.

"Bankers generally will be urged to consider the problem of the farmers of the corn belt in their respective districts and to co-operate, through the agricultural loan agencies of the War Finance Corporation, in providing adequate funds.

"In the event that the local institutions find themselves unable for one reason or another, to take care of the situation, the committee will find ways and means to create additional facilities for financing the farmers.

"It is expected that the committee will cause meetings of farm organizations and bankers to be called in the different states to investigate and help work out local problems. It is felt that a great deal of benefit will be derived from the comprehensive consideration of the problems that the committee will be able to secure and that such comprehensive participation by bankers generally may assist in a restoration of confidence and more effective functioning of banking institutions where proper security can be obtained.

"It was agreed by the committee and the directors of the War Finance Corporation that existing conditions warrant the granting of liberal credits to assist farmers in storing corn for orderly marketing and in purchasing feeder livestock through loan companies and banks. The corporation already has been engaged in making advances on a considerable scale in the live stock sections and in the corn belt."

leaves the way open to enforce the western order should pressure from shippers demand it. Apparently it is up to the shippers.

NEW WEIGHMAN'S CARD

At the Weighmasters Scalesmen's Conference, October 2, 1921, the following report, submitted by the appointed Committee, was unanimously adopted:

"We recommend a card of suitable size, with space for the following information: Name of Weighing Department issuing card, Loading Elevator, Date of Loading, Car Number, Initials, Contents, Weight, Name of Weigher. Also to provide space to insert: Name of Unloading Elevator, Weight, Scale Number, Name of Weigher, Date of Unloading.

The Chicago Board of Trade Weighing Department has adopted the above recommendations and is now using cards (3x5 inches) as follows:

BOARD OF TRADE Weighing Department

Shipped from CHICAGO.....
Elevator
Initial..... No.
Contents
Weight
Deputy Weighman.....

Received at
Elevator
Weight
Deputy Weighman.....
Date unloaded.....

NEWS LETTERS

DULUTH

S. J. SCHULTE - - CORRESPONDENT

WITH the close of the lake navigation season operators on the Duluth market are prepared for a quiet period for a time at least, until some improvement shows in the general marketing situation. Stocks in the elevators when last boat cleared for the season were approximately 7,500,000 bushels including 5,000,000 bushels of oats. Wheat stocks were down to less than 1,600,000 bushels, and practically the whole of that was held by growers under storage receipts. In line with advices received from country points, a fair tonnage of grain from over Minnesota and North Dakota points is expected to be moved this way for winter storage. Shipments are being held up pending freight rate readjustments, but in the event of the reduction of 16 cents a bushel on grain becoming effective on December 27 as per schedule, a fair movement is expected between now and spring.

Commenting on the situation, R. M. White of the White Grain Company said: "Merchandising of feeds became largely a local proposition as soon as the heavy advance in freight rates became effective last year. Dealers who had been accustomed for years to fill orders for feeds from points a few hundred miles distant, found themselves restricted to limited areas because feeders could not afford to pay the freight. I look for conditions to get back to normal gradually as soon as freight rates are restored to a reasonable basis."

Elevator interests at Duluth are finding screenings very much of a drug on the market largely on account of freight rates being so high as to preclude shipping except to nearby points. They are being sold by wagon loads at the elevator at \$4@5 a ton, and they can be bought in carlots at \$3. Screenings commanded from \$25 to \$35 a ton on this market during the war period.

Members of the Board of Trade here enjoyed the cigars on J. A. Finkelson, manager of the Bartlett Frazier Company's office here, one day recently, the occasion being the arrival of a young son at his home. The following day, the crowd smoked at the expense of "Bud" Harbison of the Harbison Grain Company, in recognition of the Finkelson senior's decision to name Finkelson Junior after him.

The Globe and Consolidated Elevator Companies have been taking care of a fair movement of corn from southern Minnesota points during the last 10 days. Part of that grain is coming in for store and the balance of it is being bought at the current market basis. At this writing No. 2 Yellow corn is quoted on this market at 46 cents, and No. 2 Mixed at 45½ cents.

Officials of the Duluth Board of Trade have filed an application with the Department of Agriculture at Washington for a license as a futures trading market, and it is expected to be received in due course. In the meantime the rules of the board were amended to comply with the provisions of the Capper-Tincher Bill. Though the new Federal Bill will not become effective until December 24, trading in futures on the Duluth market was curtailed during the fall through the provisions of the Minnesota state law being in effect. Trading in Spring wheat futures has been nominal here for several weeks, as with receipts of it amounting to only a few cars a day and the bulk of that for storage, there was little of that grain to be hedged. With Duluth as the primary Durum market a substantial volume of trading was put through in its futures, enabling some of the pit operators to earn fair commissions.

Contrary to earlier expectations, shipments of wheat and other grains were made from here to Buffalo right up to December 12, the time limit of the lake navigation season. The elevator interests received lake contracts and they chartered boat space to move it at the eleventh hour. Owing to the small receipts and limited supplies carried in the elevators, steamers were in some cases forced to wait a

couple of days to enable the elevators to accumulate cargoes. The closing boat rate was 4½ and 5 cents for Buffalo delivery or 6 cents to include winter storage. The jump in the lake rate from 1¾ cents late in October to 5 cents resulted in considerable wheat being shipped all-rail from Minneapolis. The railroads were thus placed in position to compete with the lake interests, and they are credited with losing no time in getting after the business.

A specialist put through a tidy volume of business in rye on this market during the last month. Some of that grain was wanted by exporters to fill export shipping contracts, and on such occasions its quotations were advanced only to recede again after the business had been filled. Elevator interests confined themselves to bidding for rye only when they had orders for it, and its market sagged 5 cents to around 80 cents for spot No. 1 rye. Approximately 450,000 bushels of rye remained on store in the elevators when the lake navigation season closed.

Duluth millers are of the opinion that the trade will be compelled to buy a substantial tonnage of Canadian Spring wheat for mixing purposes between now and next spring in spite of the high duty imposed under the emergency tariff on account of the difficulty being experienced in procuring adequate supplies of domestic wheat of good milling quality. "As far as I can judge now, Minneapolis and Duluth millers will require to enter the market for a round tonnage of Canadian wheat before next spring to bring their flour up to grade" said A. Laird Goodman, manager of the Duluth Universal Milling Co.

L. Brisley, for several years cash grain man with W. C. Mitchell & Co., on the Duluth Board of Trade, has been transferred to that house's Minneapolis branch. His place has been taken by Carlisle Hastings, who has been for a considerable time associated with W. C. Mitchell & Co. Mr. Brisley has a wide circle of friends in Duluth, who wish him success in his new sphere. Brisley saw active service in France during the World War, having obtained a captain's commission, and he retired from the service with full rank.

Warren G. Starkey, who was for some time connected with W. C. Mitchell & Co., has opened up in the grain commission business on his own account on the Duluth market. He has won recognition in trade circles as a careful conscientious trader, and one well posted in the business. His friends are sanguine that he will make a success in his venture.

Clarence F. Burgess of Devils Lake, N. D., has obtained a verdict for \$9,982 in an action for libel against Turle & Co., Duluth grain brokers. The plaintiff claimed \$100,000 damages for libel through the publication of a notice in several North Dakota papers which said "You have appropriated to your own use crops and proceeds of crops raised on real estate hereinafter described, instead of paying and delivering them, less deductions as mentioned, to Turle & Co." In defence, the Duluth firm claimed that the plaintiff had committed the deed, referred to in the notice. The outcome of the suit attracted interest in grain trade circles here, as considerable land owned by commission men over the Northwest is being worked on shares and disputes have arisen in connection with the contracts from time to time.

R. J. Henderson of Fort William was a recent visitor on the Duluth Board of Trade. In his opinion congestion is almost inevitable at the elevators at Fort William and Port Arthur within the next few weeks on account of the prospect for a continued rush of grain there from the country after the close of the lake navigation season. One of the difficulties being experienced by the trade up there is that considerable farmers' grain is being held in the elevators on storage tickets, reducing the space available for handling regular business to that extent. Several lake steamers were chartered to hold grain for winter storage at lake ports and at Buffalo.

The Barnes-Ames Company is credited with having done 30 per cent of the volume of business in Durum for shipment to Eastern millers and for export during the fall season. Operations of the Zenith Grain Company of Winnipeg, one of Julius H. Barnes subsidiary companies, were on a large scale during the fall. That house was constantly in the market for lake tonnage to move grain to Buffalo.

MINNEAPOLIS

H. A. PAUL CORRESPONDENT

AN EDUCATIONAL program to encourage intelligent use of phosphates on the soil, to eradicate the barberry bush, source of black stem rust, to increase effectiveness of the cereal experimental laboratories at the Agricultural College of the University of Minnesota and to bring about better wheat grades and other aims to the advantage of the miller and farmer of the Northwest, will be carried out in the next spring growing season by members of the Spring Wheat Crop Improvement Association which recently met in Minneapolis.

Three weeks of organization work has resulted in 256 farmers and 14 elevators signing up for the United States Grain Growers, Inc., in five counties in Minnesota, according to headquarters of that organization. In Kittson County, elevators at Kennedy and Humboldt signed up; in Redwood County, elevators at Redwood Falls, Walnut Grove and Belview signed up; in Watwan County, elevators at Butterfield and LaSalle signed up and in Wright County an elevator at Annandale signed up. Lyon County still holds the lead in number of farmers and elevators signing contracts. It is reported that 767 elevators and 27,472 farmers have contracted to market 50,000,000 bushels through the United States Grain Growers.

The National Tractor show will be conducted on the grounds of the Minnesota State Fair association from February 6 to 11. The National Farm Power Equipment show will be conducted with the tractor exhibition. A number of nationally known figures in agricultural engineering and allied lines will speak at the show.

Representative O. C. Neuman was elected president of the Traverse County Agricultural Association at the annual election held recently at Wheaton. Mr. Neuman has headed the Association all but two years since its organization in 1907. J. B. Burns was elected secretary to succeed himself.

The annual convention of Minnesota Implement Dealers will be held in Minneapolis, January 10. About 1,500 dealers are expected to attend. The convention ends January 12. Special rates are expected from the railroads. T. J. Turney of Owensboro, Ky., former president of the National Federation of Implement Dealers, will be one of the speakers. His subject will be "Organization." F. R. Todd, vice-president of Deere & Co., of Moline, Ill., will speak on "Problems of the Implement Industry." L. E. Potter of Springfield, president of the Minnesota Farm Bureau federation will speak on "What Has the Farmer Got on His Mind?" A. L. Sperry, attorney, of Owatonna, will speak on "The Implement Dealer's Part in this Period of Reconstruction."

The elevator of the Edward F. Berkner Grain Company of Sleepy Eye was totally destroyed by fire November 21. The origin of the fire was believed to have been from defective wiring. Loss on the elevator contents and some box cars totalled about \$65,000. About 48,000 bushels were destroyed in the elevator.

Fire December 9, destroyed the Kittson Grain Elevator at Kittson, Minn., and partly damaged the coal sheds of the Great Northern Railroad. There was little grain in the elevator.

What is believed to have been the largest shipment of flour mill equipment to ever reach the Northwest was received the last part of November for the new Paramount Mill of the United States Cereal Company. The shipment consisted of 13 carloads of machinery, valued at \$90,000. With materials and machinery arriving so fast, O. M. Correll, vice-president of the new company, announced that the first flour would be made in the new \$450,000 mill on or about May 1, 1922. Open house will be conducted at the new plant early in the year to give all people of the Northwest an opportunity to view the modern equipment in the fireproof building. The new mill

when opened will have a capacity of 2,400 barrels a day. Officials contemplate extending this minimum, however, to 3,600 barrels. The Paramount Mill is the first to be built in Minneapolis since completion of the Russell-Miller Company's mill four years ago.

A carload of corn was donated by the farmers of Mountain Lake, Butterfield and Gingham Lake for Russian relief.

J. R. Howard, national president of the American Farm Bureau Federation; Frank O. Lowden, former governor of Illinois, and others will speak during the annual farmers' and homemakers' week at the University Farm January 2 to 7.

Stockholders of the American Barley Company, a \$2,000,000 South Dakota corporation, may proceed in a trial for \$888,500 against W. H. L. McCourtie and other promoters of the company, the State Supreme Court decided recently. The trial will be held in Minneapolis, before the District Court. The stockholders in the company had sued for this amount, claiming that McCourtie, S. J. Boal and H. L. Clancey had issued stock illegally and secretly and had made other illegal expenditures. A demurrer was granted McCourtie in District Court, but the Supreme Court reverses this demurrer.

LOUISVILLE A. W. WILLIAMS - CORRESPONDENT

THE general feed, grain and hay business has been better the past month, and the elevator companies are better satisfied, as a result of handling more grain and having better stocks on hand for long storage. There has been quite an improvement in fall business this year as compared with last year. At that time inequable freight rates for a time almost smothered Louisville, it being impossible to handle grain freely here, especially during that period when Indiana was maintaining intrastate freight rates when other states were operating on interstate rates, following the last advances in freights.

Announcement recently of the reduction of 10 per cent in freight rates on agricultural commodities is resulting in slightly better feeling for the corn and grain growers, who will get the advantage, in that it is the grower who pays the freight to market. This, along with reports of contemplated reductions in freights after the first of the year, is making for more than the usual amount of interest in the matter.

There has been better demand for corn, oats, millfeed and hay during the past month as a result of pasturage being about gone, and need for more feed. It is claimed that if mills were running full there would probably be overproduction of millfeed, but as it now is, production is short, and it is being cleaned up very well as a whole. Manufactured feeds are in fair demand, hay is moving better. Cottonseed feeds are too high for active movement.

Hay prices are a little lower than they were as a result of farmers getting cleaned up, and having time to haul. No. 1 Timothy was over \$22 a few weeks ago. Present hay markets, selling, carlots, baled, Louisville, show No. 1 Timothy, \$21 a ton; No. 2, \$20; Mixed, No. 1, \$19; No. 2, \$17; Clover, No. 1, \$21; No. 2, \$18; wheat and oat straw, \$12; rye straw, \$15.

Feed prices are much higher, bran having been down to around \$20 not so long ago, whereas today's prices, cotton, carlots, selling at Louisville, show bran at \$27 a ton; mixed feed, \$28; middlings, \$30; hominy feed, \$26.

Flour prices have been erratic during the month, having broken 25 cents a barrel to \$7.60, for short patent. Winter wheat flour, but recovered to \$7.85, which is about 35 cents a barrel under the high for the crop year; \$7.60 was the low for the crop year. This represents a mighty firm market as a whole, and millers have done very well as a result.

Alfred Brandeis, local grain jobber, who is quite devoted to fine music and higher arts, is one of the incorporators of the Symphony Association, which is planning to bring some real artists and high class music to Louisville shortly.

New corn has come in in fair shape this season, but cold weather is needed to dry it out, and a good deal of corn is being kiln dried. Some bad corn is being reported, but the bulk of deliveries have been of good grain. This is easily shown in that new grain is quoted at only one cent a bushel under old corn where kiln dried. No. 2 old corn is 59 cents for the Yellow and White, with Mixed at 58½. Kiln dried new corn, No. 2, is 58 cents; and No. 3, 56 cents. Oats are steady at around 38 cents for 3 White and 40 cents for 2 White. There is very little No. 2

grade White oats to be had, and Mixed oats are hardly known in this market today. Wheat is at around \$1.25@1.30 a bushel, quoted by buyers, with wagon wheat at \$1.20. Practically no wheat is sold out of Louisville, which is more of a consuming market. Quotations have been up to around \$1.30@1.35 a bushel paid by millers at Ohio River crossings.

It is claimed by some of the grain men that with money easier to secure, and at lower rates of interest, and with grain at comparatively low prices, storage of grain is again improving. There is an undercurrent in the wheat market, which is backing the argument that wheat will be much higher in the spring. This is not a gambling belief at all, but merely a belief that is being backed to the extent of buying wheat and placing it in storage for future use.

Reports on the growing wheat crop in Kentucky indicate that it got away to a fine start, and with mild weather, plenty of rain and plenty of sun, it is one of the most promising winter wheat crops of years. The crop was planted late this year, not much of it going in until after October 5, on advice of county agents, in an effort to block insect pests.

A report from Washington concerning barley production in Kentucky shows that in 1909 65,596 bushels were reported by 175 growers. In 1919 there were 508 growers reporting a crop of 119,542 bushels. In 1909 Kentucky was thirty-first in production, and in 1919 was twenty-ninth. Only 14.2 per cent of the Kentucky crop was sold in 1919 and 13.7 in 1909, the balance being consumed on the farm.

It is claimed that more cornmeal, corn, etc., is finding its way into whiskey than would be generally believed. There are some reports to the effect that a few distilleries are running occasionally on production of whiskey for medicinal use, but if this is true they operate without making any fuss about it, as many of the plants have been dismantled, and the average distiller prefers going out of business, to producing more whiskey, and having it tied up by changes in prohibition laws, and eaten up by high taxes of one sort or another. However, the moonshiners are very busy, and each week there are records showing many, many stills wrecked by the prohibition agents. It is fairly well established that the reason moonshine was not actively made before prohibition was that the moonshiner couldn't compete on a profitable basis with the large and well equipped plants, even where he didn't have to pay a Federal tax. Today he is getting fabulous prices for his production.

INDIANAPOLIS EARL BULLOCK - CORRESPONDENT

THE Purdue University Agricultural Experiment Station will conduct an experiment, to determine whether moldy corn is injurious to livestock. Both steers and hogs will be used in the experiment. This announcement was made by Director G. I. Christie of the station, who stated that the experiment had been planned because of the large amount of moldy corn in Indiana this fall, due to damage by the corn ear worm and weather conditions. "A large number of farmers are raising the question as to whether they can safely feed the moldy corn which is found in large quantities in the field over the state," said Director Christie. "The corn ear worm has injured a large amount of corn and also has been responsible for much of the mold that has taken place. There is in addition to the regular molds a bacterial rot which is also causing a large amount of the loss. The station appreciates the difficulty in determining anything definite with reference to injurious effects of the molds and rots of corn for the reason that there are so many different kinds of molds and it will be hard to detect just which one is causing the loss if any does occur. However, because of the insistent demand on the part of the farmers, arrangements have been made to select corn from fields on the bottom land; on the thin clay soils and on the rich loam soils of Tippecanoe and adjoining counties. Fodder corn with moldy ears will be fed to several lots of steers which will be bought for this purpose. The moldy and rotten corn will also be fed to several lots of hogs. As soon as anything definite is determined full information will be given on the results of this experiment."

E. W. Wagner & Co. have opened the offices of F. G. Sprague & Co., as their own branch as the result of the Sprague company's having made an assignment for the benefit of creditors. Whether the plans of the Wagner company include the Kokomo office of the Sprague company, in the Frances Hotel Building, or whether the Ft. Wayne office only will be

re-opened, could not be learned definitely. Other offices of F. G. Sprague & Co., which were correspondents of the Wagner company, which may be reopened are located at Muncie, Ind., and Dayton, Canton, Elyria and Mansfield, Ohio.

The Farmers Union Elevator Company of Carlisle has gone bankrupt and at a hearing before Charles A. Burton, referee in bankruptcy for the district of Indiana, recently, Louis Kixmiller, cashier of the Peoples State Bank of Carlisle, was appointed trustee and the firm of Wade & Wilson of Terre Haute was appointed attorneys for the trustee. The assets of the company are estimated at \$13,000 and the liabilities at \$23,000.

The Wayne Feed Company has been organized at Fort Wayne, Ind., with a capital stock of \$25,000, for the purpose of operating grain elevators and manufacturing feeds. The organizers of the company are E. K. Shalley, H. D. Egley and T. L. McGee.

For the second time within a period of four months, robbers have visited Twelve Mile where they burglarized the Farmers' Elevator, making their escape with 16 automobile tires and eight brand new tubes. The manner in which the burglars went about the work has caused officers of the elevator to believe that the job was pulled by persons familiar with the interior of the elevator offices. The offices of the elevator offered a reward of \$100 for the arrest of the guilty parties while a similar sum is offered for the recovery of the loot.

Will Schorling of Greensburg spent a week at Purdue University recently as a representative of the grain dealers of his section of the state to study grain seed testing. Mr. Schorling has been the official grain and seed tester for the Nading Grain Company for several years. Under a new law which goes into effect January 1, 1922, all dealers are required to guarantee the purity of grain and seeds. E. G. Proulx, state chemist, had charge of the school at Purdue.

MILWAUKEE C. O. SKINROOD - CORRESPONDENT

THE great tide of receipts in the grain trade has subsided, at least temporarily. Grain business which had reached record proportions in September and October and for a portion of November has gone back to the old scale of previous years. Receipts at the Milwaukee market for the first week in December were 480 cars against 404 cars in the previous week, 515 cars for the corresponding week last year and 543 car loads for the corresponding week in 1919.

Grain men generally assert that the lull in grain trade may be due in large measure to the coming cuts in freight rates on grains and grain products, which would naturally lead to delay in shipping. It is also generally believed by farmers that grain prices are scraping bottom as shown by higher prices for the deferred months in futures than the near months. Hence it is believed that many farmers will refrain from selling their holdings until prices have improved to some extent and until freight charges are made more reasonable.

Many Milwaukee grain men say that the great rush of grain for two or three months was the usual enforced selling right after threshing time and that this was larger than usual because of the big debts which many farmers have against them. Once this rush selling is over, it is believed that grain trade will settle down very largely into the normal rut and that receipts will be very close to normal proportions.

Receipts of grain for the past week have been made up of 72 cars of barley, 250 cars loads of corn, 115 cars of oats, 29 cars of wheat, 13 cars of rye and one carload of flax.

The December rate of interest has been fixed by the Finance Committee of the Chamber of Commerce at 7 per cent. This compares with a rate of 7½ per cent for many months and is direct evidence of the growing ease in the money market.

George A. Schroeder, grain traffic expert of the Chamber of Commerce for about a score of years, died suddenly of pneumonia at his home at 593 Cases Street. Mr. Schroeder was not only known to every member of the Chamber of Commerce, but he was well known among traffic men in all parts of the United States, having appeared before commissions and regulative bodies many times in the course of his duties. Last winter was spent by Mr. Schroeder and his wife in California. He had resigned from his position to take a well earned rest. Only one winter was spent there however. He became restless to get back into the work harness and returned to Milwaukee in the spring of 1921. He became a con-

sulting traffic expert and was secretary of the Milwaukee Traffic Club, a position he was admirably fitted to fill after his long experience. Grain men provided for a floral tribute at the funeral and a large number of them attended. The Masons had charge of the funeral rites, Mr. Schroeder being a Thirty-second Degree member of that order.

Mr. Schroeder left a wife and two boys, Frank of Milwaukee and William, with the Associated Press in the South. He also left two brothers, Theodore A., Boston, and Fred A. Schroeder, New York; also a sister, Mrs. Henry G. Rahn of Milwaukee. Born in Leavenworth, Kan., Mr. Schroeder came to Milwaukee with his parents while still an infant. His father Albert P. Schroeder, a Civil War veteran, died at the Milwaukee Soldiers' Home last year. Before entering the service of the Chamber of Commerce, he was a clerk in the freight department of the Chicago, Milwaukee and St. Paul Railroad.

An agency is working in Milwaukee to enable farmers to hold their grain and other products so as not to sacrifice them on a low market. This agency is the Wisconsin committee of the War Finance Corporation with F. K. McPherson of the First Wisconsin National Bank as chairman. Loans of many thousands of dollars have already been approved for Wisconsin farmers. Estimates are made by Mr. McPherson, that if all the money that can be used legitimately in this field is applied for, about \$5,000,000 will be required to take care of the Wisconsin situation. Loans are made only to bankers or to other organized agencies, who in turn transmit the advantage to their farmer patron.

Carl D. Jackson, member of the railroad commission of Wisconsin, and also president of the National Association of Railway and Utilities Commissioners, was the guest of the officers of the Chamber of Commerce at a luncheon held at the Milwaukee Club. Among the other guests were Henry W. Byers, freight traffic manager of the Chicago and Northwestern Railway of Chicago; T. W. Proctor, general freight agent of the Chicago Milwaukee and St. Paul railway of Chicago and A. A. Wilson, assistant general freight agent of the same road at Chicago.

Mr. Jackson was the chief speaker at the Milwaukee Traffic Club meeting. He took a strong stand in favor of private ownership of railroads and declared that railroad rates would have to come down because the present high levels are a serious drag on business. He also stated that it was deplorable that the Interstate Commerce Commission had taken over so many of the rights and functions of the state rate commissions, and asserted that this has caused many costly conflicts.

The Chamber of Commerce Transportation Department has announced that carriers will reduce by 10 per cent rates on grain, hay and flour, also meal made from grain, effective on January 1 of next year.

Despite the fact that grain prices had begun to go down rapidly by December last year, the comparative declines from a year ago at Milwaukee are large. Barley is selling at 60 to 62 cents a bushel as compared with \$1.02 to \$1.03 for the corresponding No. 3 grades a year ago. This price is down about 40 per cent.

No. 3 White oats has been selling at 33 to 36 cents which compares with 44 to 46 cents for the same date a year ago. This represents a decline of a little more than 20 per cent.

Recent selling prices for rye of 83 to 83½ cents a bushel for the No. 2, compare with \$1.47 a year ago at the corresponding date. This means a decline of between 40 and 45 per cent.

The latest selling price for No. 2 Yellow corn, 51 to 52 cents a bushel, compares with 75 to 80 cents a bushel for the corresponding date a year ago. This is a decline of about 35 per cent in the last 12 months.

The latest price for No. 1 Northern wheat—\$1.30 to \$1.36, compares with \$1.75 to \$1.80 a bushel for the same time a year ago. This is a decline of about 25 per cent.

The greatest declines since last year are in barley with 40 per cent and rye nearly 45 per cent. Corn follows third with price losses in 12 months of 35 per cent and the fourth and fifth in declines are wheat and oats with 20 to 25 per cent off.

Grain stores at Milwaukee are fairly large early in December with 98,000 bushels of wheat, 151,000 bushels of corn, 642,000 bushels of oats, 134,000 bushels of barley in round numbers and 20,000 bushels of rye. Oats is the only grain in which stocks exceed a half million bushels.

A representative of the Taylor & Bournique Company, Albert R. Taylor, has been chosen a member of the New York Produce Exchange.

There is still a high percentage of grain cars leaking despite the efforts of railroads to repair them for the big run of grain early in the fall season. The last monthly report shows 17 per cent of them leaking compared with 18, 19 and 23 per cent as the

three highest leakage months of the year. The low months have been 12 and 14 per cent leaking, indicating that the present ratio is not as bad as the worst and not as good as the best showing made.

A fire recently at Elevator B of the Froedtert Malt Company did damage aggregating several thousands of dollars. About 200,000 bushels of barley in the elevator were damaged to slight extent. The Froedtert Malt Company has taken hold of the Interstate Malt Company, which it recently purchased. A number of repairs and alterations were made to the plant before opening it under new ownership. Special cleaning machinery and other conveniences are being installed. The Froedtert Malt Company now has a total malting capacity of 8,000,000 bushels a year. This includes the plants at Milwaukee and those at Red Wing and Winona.

The usual expedient of storing grain on boats for the winter is being adopted in some cases. The steamer *Luzon* loaded a cargo of 250,000 bushels of corn and oats at the Rialto Elevator and will retain the grain after being tied up at Buffalo.

The Milwaukee Chamber of Commerce has decided to turn down the proposition of providing \$1,000 for the building fund of the Chamber of Commerce of the United States. The matter was taken up by general referendum of the membership body and defeated.

Receipts of oats to date for the crop year indicate that the city is third in size of marketing, being outranked by Chicago and Minneapolis, the latter with more than 16,000,000 bushels. The Milwaukee record is a little over 9,000,000 bushels.

The Chamber of Commerce of Milwaukee will enact all the rules and regulations which are required of the exchanges under the Capper-Tincher law. The statute will be obeyed in full letter and spirit, according to Secretary Harry A. Plumb.

Among the grains represented at the third annual grain show in Chicago were those from Wisconsin. E. D. Holden of the agronomy department of the University of Wisconsin announced that the exhibits from the state included corn, soy beans, field peas, clover seed, barley and oats. Mr. Holden, who was in charge of the exhibit declares that Wisconsin also has an excellent standing as a hay state. The first year of the show Wisconsin took the hay sweepstakes and last year Alfalfa and Timothy hay exhibits took first place.

The junior corn clubs of Wisconsin also took part in the new feature of the show put on by these organizations. Both boys and girls of the state engaged in this enterprise and corn was also sent from the state to the Louisiana roundup where first and third prizes were taken last year. The youngsters of the state are doing much to promote a high standard of grain production, according to Mr. Holden.

Milwaukee stocks of flour as reported at the opening of the month of December were 38,000 barrels as compared with 46,000 barrels a month ago, 18,000 barrels a year ago, 45,000 barrels two years ago, 45,000 barrels three years ago, 12,000 barrels four years ago, in 1917; 21,000 barrels in 1916 for the same date, 129,000 barrels in 1915 and 139,000 barrels in 1914. The figures indicate that large stocks were the rule before the war and that very small stocks have been the rule since. The totals are gradually working up a little from the lowest point however.

The total shipments of grain out by lake for the season were a little less than the 35,000,000 bushels predicted. The actual figure will be between 32,000,000 and 33,000,000 bushels when the final corrected figures are compiled. The largest year previously on record was 18,000,000 bushels, so that the past season saw lake shipments almost double the highest previous year. Shipments for a number of seasons however have run from 6,000,000 to 10,000,000 bushels, so that the traffic of 1921 was from three to five times the normal volume.

About half of all the freight which went out from Milwaukee by water was grain, according to Walter J. Fitzgerald, vessel agent. The great flood of grain which came early in the fall necessitating prompt shipment, together with the lower rates by water, had much to do with diverting shipments to the lakes, grain men say. An unusually large percentage also went east by the Canadian route instead of the usual American water route because of the saving in rates by that method.

All regular insurance rates on vessels except a few policies, were canceled on December 12, says Mr. Fitzgerald, so that there will be practically no grain shipping business after that date. A number of vessel lines will run boats all winter as usual.

Milwaukee has not quite reached its stride in corn receipts as yet, though grain men say it will be reached later in the season. The movement of corn for the new crop year beginning November 1 to date, shows that Milwaukee stands fifth among the

primary markets, which is the same rating as the city had exactly a year ago. Milwaukee corn receipts on the new crop year have exceeded 1,300,000 bushels. The city is outranked slightly by Omaha and Peoria and to a greater extent by Chicago and St. Louis.

Among the newly elected members of the Chamber of Commerce are Henry H. Newell of Chicago and Thomas F. Armstrong of Minneapolis.

Milwaukee has gained immensely in its popularity as a wheat market, now standing in seventh place instead of ninth place a year ago. Receipts of more than 6,000,000 bushels this crop year compare with 1,670,000 bushels received a year ago. Arrivals have therefore been between three and four times as large as a year ago. Grain men predict that with the great shipments of grain by lake, Milwaukee is destined to become a far larger wheat market than it has ever been before.

Milwaukee is still taking a keen interest in all the facts and figures and opinions offered on the new St. Lawrence deep waterway route. William George Bruce, head of the Milwaukee Harbor Commission, asserts confidently that Milwaukee will be an ocean port within five years. Figures have also been quoted to show that the lake ports are laying their plans to be ready for ocean shipping when that day arrives. It is pointed out that Milwaukee harbor will be ready for large ships without the slightest change of plans for harbor building.

Congressman A. P. Nelson, of Wisconsin has also come out with a strong statement in favor of the water way. He says that the Middle West is not trying to spoil the New York barge canal, but that this is not an adequate outlet to the sea for the section of the country.

Mr. Nelson characterized the opposition of New York to the new route as sectional and selfish and opposed to the best interests of the entire nation. He also asserted that the waterway would go far to provide transportation facilities at a time when the cost of placing the railroads in condition to properly serve the public exceeds the financial resources of the country.

As one of the great benefits of the new route Mr. Nelson maintains that it will shorten the railroad hauls, it will reduce congestion, increase car efficiency and save on railroad equipment several times the cost of the enterprise. One of Mr. Nelson's most telling points is when he asserts that the new route will save \$500,000,000 annually for the people of the Middle West. This would mean that the entire cost of the canal will be made up about twice every year.

Reports on the Milwaukee barley market indicate a decided scarcity of the fancy grain, while the bulk of the offerings consisted of light weight which has to be absorbed by shippers and the feed trade. There is a keen inquiry for the fine malting grades, also there is an eager inquiry for this same kind of barley for seed grain. Arrivals are showing the effect of the serious drought last summer.

The oats market has been weak most of the time, in fact Milwaukee prices are now the lowest in 15 years. Receipts are heavy but quality is poor and the cereal industries are having trouble in getting the fine grades needed for this class of trade. Light weight oats had to be sold at a discount. Fortunately, there was a strong shipping demand, so that this outlet took care of all receipts and even placed the local market at a premium over other markets.

Corrected returns on the oats crop of Wisconsin give the yield at 63,800,000 bushels compared with 107,000,000 bushels last year and a five year average of 93,000,000 bushels. The yield is about one-third under the usual average. The average weight of the oats in 1921 is a little over 26 pounds a bushel, compared with 34.8 pounds a year ago and an average weight of 30.4 pounds for 10 years.

The production of barley in Wisconsin is about half the normal, with 10,000,000 bushels in 1921, compared with 15,000,000 bushels in 1920 and a five-year average of 19,000,000 bushels. The weight is also low at 43 pounds plus, compared with nearly 48 pounds last year and a 10-year average over 47.

The Wisconsin rye crop escaped the worst of the drought being harvested early, consequently yields were better. The production was 6,400,000 bushels compared with 7,700,000 a year ago and a five-year average of 7,500,000. Average yield was 15 bushels an acre compared with 16 bushels last year and a usual average over 17 bushels.

The wheat crop of Wisconsin was 3,000,000 bushels compared with 5,000,000 bushels in 1920 and a five-year average of 6,000,000 bushels. The weight is also light, a little over 52 pounds to the bushel.

The state had a rather good corn crop of 91,000,000 bushels compared with 86,000,000 bushels a year ago and a five-year average of 59,000,000 bushels. The yield was just 50 per cent over the average for a number of years. Not so much corn as usual is merchantable due to the car worm injury. The year was good for corn however, with 99 per cent maturing with no frost damage, a much higher percentage than usual.

NEW YORK

C. K. TRAFTON - - CORRESPONDENT

MEMBERS of the New York Produce Exchange, and especially those in the grain and export trade, were highly pleased lately to welcome their old friend and associate John P. Truesdale back on 'Change. Mr. Truesdale was heartily congratulated upon his quick recovery despite his advanced age from injuries sustained early in November when he was bowled over by a mail auto-truck. It was necessary to take him to a hospital and at first great apprehension was felt as it was feared that he might not recover. Consequently, his return to business created much gratification.

William O. Kennedy, who has succeeded P. W. Cashman as manager of the New York office of Thomson & McKinnon, commission merchants on the Chicago Board of Trade, has been elected to membership in the New York Produce Exchange.

Harry B. Day, Wm. J. Brainard, and the Brainard Commission Company have applied to the Board of Managers of the Produce Exchange for reinstatement. Both were suspended last May for a period of one year.

Adam S. Thomson of A. S. Thomson & Co., terminal elevator proprietors at Duluth, has been elected to membership in the New York Produce Exchange.

Clifford S. Norris, who succeeded A. R. Merkelson as assistant manager of the New York office of the Simonds-Shields-Lonsdale Grain Company of Kansas City, has been elected to membership in the New York Produce Exchange.

J. A. Rasmussen of J. A. Rasmussen & Co., stocks, bonds, and grain, has been elected to membership in the New York Produce Exchange.

Members of the Produce Exchange interested in the Luncheon Club organized some time ago, were greatly pleased recently by reports that the work of constructing an extra floor on the roof of the Exchange building has made excellent progress; in fact, practically all of the heaviest work has been completed. The extension of two of the elevator shafts into the new section has been finished, and hence the two cars which have been out of service for the time being are now being operated. The enlargement provides much more space than the Luncheon Club will need, and hence portions will be available for office purposes. The Flour Committee has rented a commodious section for the use of the Flour Inspection Department as there is excellent light.

William Willis Merrill, one of the oldest members of the New York Produce Exchange, has passed away, at the age of 70 years. During his long business career he always took an active interest in the affairs of the Exchange. He played a prominent part in the marketing of shares of various milling concerns, and grain elevator corporations, as well as memberships in various exchanges. In a sense his will was a unique one and of decided interest to business men. One feature was considered of particular and general interest and the example set was regarded as a commendable one. In short, he left to two old employes, John C. Watson, who was 40 years with him, and E. F. Meyer, 20 years, the sum of \$200,000. Mr. Watson has long been a member of the Exchange, representing Mr. Merrill there. It was stated in the will that this generous sum was bestowed because of the faithful and loyal conduct of the two employes.

John R. Mauff, secretary of the Chicago Board of Trade, paid a brief visit to members of the New York Produce Exchange recently while on his way home from Washington. Other members of the Board of Trade who were visitors recently on the Produce Exchange were: Frank S. Cowgill, vice-president of the Bartlett Frazier Company; Moses Rothschild of M. Rothschild & Co.; Wm. E. White of the J. Rosenbaum Grain Company; Gardiner B. Van Ness, president of Gardiner B. Van Ness & Co.; Thomas Howell; and J. E. Bellot.

Members of the grain and hay trade in New York, but especially on the Produce Exchange, regretted exceedingly to hear of the death of William K. Voorhees, at the advanced age of 83 years. Although his death was attributed chiefly to old age, he was still a comparatively young man in spirit and vigor and during his recent visits to the Exchange was heartily congratulated upon his youthful appearance. Although inactive lately, he was one of the leading men in the trade for many years, being a prominent distributor in Brooklyn where he started the firm of Jewell & Voorhees over 50 years ago in what was

then East New York. It is an interesting and curious coincidence that his son Frank S. Voorhees is now president of the Voorhees Grain Company, which is now located in the same quarters which the old firm occupied, having bought out the business of D. Jewell & Son. Mr. Voorhees served in the Civil War with the Kings County Cavalry Troop and was one of the oldest members of Covenant Lodge, No. 758, A. F. and A. M., of which he was a past master. He was a member of the Brooklyn Masonic Veterans Association, the Society of Old Brooklynites, the St. Nicholas Society of Nassau, U. S. Grant Post 327 G. A. R. and a former member of the Holland Society of New York.

Will the horses come back? That is the question of particular importance now among members of the hay, grain, and feed trades. Many who doubted it before now believe they will, and some of them present numerous strong arguments. The most convincing of them and of particular interest is the contention that because of the huge decline in the prices of feedingstuffs they are now so low that the cost of feeding a horse is comparatively insignificant. On the basis of \$26 per ton for oats, corn, and hay; \$21.50 for bran, and \$22.50 for middlings it is contended that it will cost from 35 to 40 cents per day to feed a horse, although some claim that it might be a little bit more. Hence it is argued that it is much cheaper to use horses instead of auto trucks, particularly for short hauls.

Among those prominent in this campaign to restore the horse to his former important position is Charles Schaefer, who succeeded his father as head of the old Brooklyn firm of Charles Schaefer & Son. Mr. Schaefer's trucks are now equipped with canvas sides bearing the sign:

Man, Horse and Railroads
Have Created This Country
Why Destroy Them?

Each of the horses wears a leather apron, bearing the following message in gold letters: "You can feed me for 35c per day. Why buy auto trucks?" Mr. Schaefer has also distributed large numbers of blotters throughout the trade bearing the statement regarding the economy of using horses. In some quarters it is stated that some large houses with many trucks are again employing horses.

CINCINNATI

HARRY A. KENNY CORRESPONDENT

NEWS was received in Cincinnati last month of the death of Albert E. Smith, 78 years old, at Hartford, W. Va., who until a few years ago, had been a resident of Linwood, a suburb of this city for nearly 50 years. Mr. Smith was a member of the Cincinnati Chamber of Commerce and for many years was one of the prominent figures on "Change," as a commission merchant and president of the Lawrenceburg Roller Mill Company. Of later years he had confined his business interests to the Liverpool Salt Company of Hartford, continuing as head of that concern up to the time of his death. Born on a Massachusetts farm, Mr. Smith completed his education at Oberlin College, Ohio, and came to Cincinnati, where he met and married Miss Harriet Ferris, sister of Judge Howard Ferris. They had three sons and a daughter.

Gordon Smith, of Mobile, Ala., past president of the American Bakers' Association and Samuel McDonald of Memphis, Tenn., were the guests of Charles Van Cleef, sales manager of the Dia-Malt Company last month.

D. Walter Hopkins, president of the Mutual Commission Company, has acquired controlling interest in the concern, which is one of the largest hay and grain establishments in the city. He has taken over the stock of "Wid" Daniel, who has severed his affiliations with the company. Under the new arrangement Robert Early is vice-president and secretary. The company has moved its offices from the third to the tenth floor of the Carew Building.

Ambrose Bender, hay and grain merchant with an office in the Fourth National Bank Building, has been elected a director of the Walnut Hills Business Men's Club.

"Agricultural products cannot move with profit to the farmer and in many instances cannot move at all on the basis of present freight rates. It is, I think, almost universally admitted that transportation rates on agricultural products are wholly out of line with prices of such products and there must be, in my opinion, an immediate general revision downward of freight tariffs, on agricultural products, if agriculture is to function normally, and if there is to be a renewal of business activity in the United States."

This was the declaration of Congressman Svdney

Anderson, chairman of the Joint Congressional Commission of Agricultural Inquiry, before the Fifth Annual Convention of the National Milk Producers' Federation at the Hotel Gibson last month. Mr. Anderson also urged increased facilities for farmers in making loans to finance their operations.

Alfred Gowling, engaged in the hay and grain receiving and shipping business with offices in the Union Central Building, has been tendered the post-mastership of Newport, Ky., a little town in northern Kentucky on the Ohio River, opposite Cincinnati. Mr. Gowling, who has been a resident of Kentucky all his life, has accepted the offer and is awaiting his appointment. Mr. Gowling said that should he receive the position he also will continue in the hay and grain business.

Under the hay plugging system operated at Cincinnati, the one-price basis for the contents of the car enables the shipper to form a more accurate basis of value as to the character of hay in this territory and what it will about realize when offered on the plug tracks here for sale. Forty more cars of hay and grain combined were handled by the Cincinnati Grain and Hay Exchange for the month of October than for the same month last year.

Owing to the razing of the Johnston Building, Fifth and Walnut Streets, in the near future to make way for an addition to the Hotel Gibson, the United States Department of Agriculture, located in that building, will move its headquarters to the Gwynne Building where the Cincinnati Grain and Hay Exchange is at present located.

BUFFALO

ELMER M. HILL CORRESPONDENT

INDICATIONS are that grain receipts by lake at the terminal elevators at Buffalo this season will pass the 200,000,000-bushel mark. Up to the first of December receipts were in excess of 173,000,000 bushels of which more than 20,000,000 bushels are being held in bottom storage at the outer breakwater and at berths in the inner harbor. More than 5,000,000 bushels of storage grain were still due about the middle of the month.

More boats are holding winter storage cargoes this winter than in many seasons so that elevator owners are looking forward to quite a busy winter. By the time the last lake carrier arrives with her cargo of winter storage grain it is believed more than 75 boats will be in port.

In order to take advantage of the regular low rate on marine insurance, there was a big departure of grain carriers from the head of Lake Superior for Buffalo and Lake Erie ports December 1. At midnight on that day insurance premiums took a jump. Vessel interests here report that on the final day before the rate jumped more than 5,316,000 bushels were loaded into steamships at the elevators at Port Arthur and Fort William. This is a season's record for a day.

A fleet of 20 boats carried the grain. Of this number 11 carried 3,441,000 bushels of which 3,171,000 bushels were wheat for Buffalo for export via New York to Europe. The balance, 1,875,000 bushels, was carried in Canadian bottoms to Canadian ports on the lower lakes, largely Port Colborne.

Grain carrying charges during the closing days of the season took a slight jump and 5½ cents was paid on cargoes from the Head of the Lakes for winter storage at Buffalo. Boats to unload on arrival at Buffalo from Duluth with grain received 4 cents. The rate from the Canadian Head of the Lakes, Fort William and Port Arthur to Buffalo was 3¼ cents for prompt unloading. Several boats which had been idle all season were fitted out to make the trip from Buffalo to Duluth, Superior, Fort William or Port Arthur to load winter storage cargoes for Buffalo at 5½ cents. A few charters were made at 6 cents but this was the exception rather than the rule.

The annual convention of the Mutual Millers & Feed Dealers Association, an organization devoted to the social, trade and business interests of millers and feed dealers in New York and Pennsylvania, will be held in Buffalo Friday, January 20, 1922. Sessions will be held in the Hotel Statler.

Feed prices in the Buffalo market fluctuated quite considerably in the last month. Late in the month gluten feed advanced \$1 a ton on the wholesale market; cotton seed oil dropped 50 cents and oilmeal advanced slightly. Oil meal jumped \$1 a ton early in December and there was an advance of 50 cents a ton in hominy. Wheat feeds and certain other feeds advanced from 25 cents to \$2 a ton early in the month. Latest price quotations on feed in the Buffalo market in carlots f. o. b. in 100-pound sacks were: Gluten Feed, \$37.50@38; Cottonseed Meal, 36

per cent, \$41.75@43.25; Cottonseed Meal, 43 per cent; \$45.50@46.25; Oil meal, 30 per cent, \$45.50@46; Dried Brewers' Grains, \$33@33.50; Standard Spring bran, \$27.50@27.75; Hard Winter Bran, \$27.75@28.25; Standard Spring Middlings, \$27.75@28.25; Choice Flour Middlings, \$33.75@34.25; White Hominy, \$27.50@28; Yellow Hominy, \$26.50@27.

The final meeting of creditors of Berend J. Burns, Buffalo grain merchant, was held before Referee James W. Persons in Bankruptcy Court, December 2. At that time the final report of Chester V. Reader, trustee, was filed and there was a sale of certain unadministered property. The case is now ready to be closed. Mr. Burns now is head of the American Grain & Feed Corporation in the Chamber of Commerce.

The Buffalo hay market has been quiet in the last month. Prices have been steady and hay merchants look for little activity in western hay until freight charges are lower. Latest quotations in the Buffalo market, quoted on track, are: Timothy No. 1, \$19@20; Timothy No. 2, \$18@18.50; Timothy, mixed, \$17.50@18.50, and Mixed Clover, \$18.50@20.50. Straw per ton (rye) is quoted at \$9@10.75.

Fred J. Collins, for the last three years manager of the Buffalo office of the Urmston Grain Company of Indianapolis, has organized a new grain brokerage firm known as Fred J. Collins, Inc., and has taken over the Buffalo business of the Urmston Grain Company. The new firm is incorporated for \$5,000 and Mr. Collins is president and treasurer of the corporation; M. E. Collins and William J. Michaels, being the other members of the firm. The executive offices are at 325 Chamber of Commerce. Mr. Collins is a member of the Buffalo Corn Exchange. In addition to grain, the new firm will deal in hay.

Hedley Shaw, vice-president and managing director of the Maple Leaf Milling Company of Port Colborne and one of the foremost grain and milling men in the Dominion of Canada, died November 29. Mr. Shaw had been in poor health for some time. Starting as an apprentice in the grain and milling business in Canada, near Brantford in 1884, Mr. Shaw became one of the leading members of the industry in Canada. His first mill was in Brantford and in 1898 he organized the Hedley Shaw Milling Company, Ltd. He built mills in St. Catharines and Thorold and in 1907 he established the big elevator and flour mills at Port Colborne, just west of Buffalo on the Canadian lake shore. In 1908 he amalgamated his company with the Maple Leaf Flour Mills at Kenora and 11 years ago the Maple Leaf Milling Company was formed and he became vice-president and managing director. He is survived by his widow, one son, LeRoy Shaw, and a daughter, Edna. He was born near Hamilton, Ont., in 1866.

Plans for the establishment of two or three grain elevators and warehouses in western New York are being made by the Grange League Federation Exchange, the farmers' co-operative marketing organization. These elevators probably will be built in Cattaraugus, South Dayton and Ellicottville. At a meeting of the Cattaraugus County Committee of the Federation early this month, C. Vern Young, of Cattaraugus, was elected chairman and Vern Oakes of South Dayton, secretary. The Federation decided to offer fertilizer at cost to co-operating farmers in this section of the state.

The John Young Feed Company, Inc., of 41-61 Buffalo Street, Lockport, one of the largest dealers of feed in western New York, has been featuring a special sale of all advertised brands of feed at price reductions in addition to offering a musical harp free with every order of \$5 or more.

The office of the Allen Grain Company in Eighth Street, Niagara Falls, was robbed of a large quantity of postage stamps and stock certificates.

Establishment in Buffalo of a municipal electric power plant which has been advocated by certain members of the City Council on behalf of elevator interests on the waterfront in the hope of securing cheaper electric power is the subject of an adverse report filed with the Council by F. W. Ballard, electrical engineering expert of Cleveland. In his report Mr. Ballard says the rates now charged by the Buffalo General Electric Company are lower than the city could obtain from a plant of its own. He also points out that it would require a municipal bond issue of \$20,000,000 to erect a power plant that could compete with the existing privately-owned corporation.

The William Melvin Company, Inc., has been chartered by the Secretary of State to engage in the grain and feed business in Buffalo. The company is capitalized at \$5,000 and the directors are Arthur W. Bastedo, Clarence F. Rowley and Elmer G. Meinzer.

In order that grain may be shipped from Buffalo to the Eastern Seaboard as late in the season as possible, the State Superintendent of Public Works has decided to fix no date for the closing of the New

York State Barge Canal between Buffalo and the Hudson River. The closing will be determined by ice and weather conditions. In other years the state waterway usually has closed about December 10. Ice breakers will be used in some sections of the canal to keep the waterway open as late as possible.

The Steamer *Argon* which went aground on Wicked Point, Lake Ontario, with a cargo of grain on board, has been abandoned by the owners to the underwriters as a total loss. Bad weather has prevented wreckers from salvaging the grain.

Model grain carrying barges to be used on the New York State Barge Canal were on display at the recent convention of the Great Lakes-Hudson and Atlantic Waterways Association. The barges will be electrically propelled and will have a speed of 16 miles an hour. The barges will be so constructed that there will be no wash which is a desirable feature for operation on the state waterway.

A great deal of mystery was attached to the annual dinner of the Buffalo Corn Exchange which was held in the Iroquois Hotel, Saturday evening, December 3. The occasion turned out to be a jollification and funeral party. A certain obnoxious old person, who, under the alias of "Hezekiah Gloom," has been canvassing the offices of the grain men in the Chamber of Commerce for the past two years, was interred in due form with few tears and no eulogy. Once the troublesome spectacle was over, the grain men welcomed Miss Joy, who rumor says, escaped the moving pictures only because the film companies refused to risk their operators. The dinner celebrated the passing of the second milestone on the Highway of Despond. Buffalo grain men threw comparative records into the discard and a new deal dates from the banquet. Most of the grain men of Buffalo, who are members of the Corn Exchange, were present to enjoy the festivities.

The Curtiss Grain Corporation, one of the largest grain and feed companies in western New York, filed a voluntary petition in bankruptcy in United States Court December 5 and Federal Judge John R. Hazel appointed Maxwell M. Nowak and William A. Reilly, receivers, to continue the business temporarily. Schedules filed by the corporation disclose total liabilities of \$586,689 with assets of \$286,173. Colman Curtiss is president of the corporation; Alexander M. Curtiss, treasurer, and Geoffrey Curtiss, secretary. The company operates two mills and elevators at 1224 Broadway and 652 Elk Street. The largest creditors are the Charles G. Curtiss Company which holds a note for \$247,287; the Liberty Bank with claims of \$89,644; Nowak Milling Company, \$52,000; Taylor & Bournique, \$27,353; Glenn A. Curtiss, \$50,000; Keystone Warehouse Company, \$13,000; Electric Grain Company, \$11,367, and the Buffalo Bag Company, \$11,612. Included in the assets are the two plants valued at \$120,586; machinery and tools, \$97,573; debts due on open accounts, \$32,000, and stock in trade, \$20,000. The fall in the price of grain and the stagnation of foreign markets is said to have brought about the failure of the corporation.

Members of the Buffalo Corn Exchange have started to raise a fund of \$1,000 or more with which to provide poor families with Christmas dinners and the children with gifts. The movement was started by W. E. Townsend of the Townsend-Ward Grain Company and William J. Heinold, president of John G. Heinold, Inc., grain merchants, was named chairman of the special Subscription Committee.

Maxwell M. Nowak, who has a large grain and feed business in Hammond, Ind., has resigned from the presidency of the Broadway National Bank and has sold his interest in the big East Side Bank to the Buffalo Trust Company. Mr. Nowak will devote his entire time to his grain and feed business. Members of the Corn Exchange and elevator men gave a complimentary dinner to Mr. Nowak in the Iroquois Hotel. John J. Rammacher, vice-president of the Eastern Grain Mill & Elevator Corporation, presided at the dinner.

Robert Close, marine superintendent of the G. A. Tomlinson & Co., line of grain carriers on the Great Lakes, was in Buffalo early this month inspecting the mooring of the fleet that is holding winter storage cargoes. He said his line will have 15 ships here. According to Mr. Close there is an immense quantity of grain left over at Duluth and Superior and more coming into the elevators daily. This indicates that there will be plenty of grain for early movement down the lakes next season. This same situation prevails at the Canadian Head of the Lakes, Fort William and Port Arthur, Mr. Close says.

It was expected that the Welland Canal would close for the season December 15. The steamers *Laketon* and *Riverton* were the last boats to arrive with grain cargoes from Fort William for the Maple Leaf Milling Company's big grain elevator at Port Colborne. No more grain will be shipped this season by way of the canal to Montreal and other St. Lawrence River points.

ST. LOUIS
S. F. LARRIMORE CORRESPONDENT

AT A special election held on November 30, members of the St. Louis Merchants Exchange voted, 129 to 1, to make such changes in their rules as would be necessary to make them conform to the Capper-Tincher Law.

Conditions in the Southeastern States, which are usually large buyers of grain in this market were described recently by Secretary J. B. McLemore, who was on a business visit to St. Louis. "Very little wheat," said Mr. McLemore, "was purchased by our millers earlier in the season, on the high spots, and present stocks are about on a parity with present values. Flour prices are very demoralized, however, and little improvement is hoped for until after the first of the year. Stocks of flour will by that time have become nearly exhausted, if not earlier.

"Our stocks of cash wheat suffered a shrinkage of about 2,000,000 bushels in October, and fully that much more in November. The holdings of our millers per 1,000 barrels capacity are the lowest on record; sales for forward shipment are considerably below normal. The consumption of flour has not been appreciably reduced, and a fairly well sustained demand seems assured, but it likely will be of a hand-to-mouth character."

Investigations carried on by the State Board of Agriculture with the quality of wheat produced in Missouri last season indicate that 3.8 per cent graded No. 1; 34.2 per cent No. 2; 25 per cent No. 3; 22.8 per cent No. 4; 9.2 per cent No. 5 and 5 per cent under No. 5.

Stocks of flour at St. Louis on December 1 were 84,470 barrels, as compared with 76,400 barrels a month ago and 66,900 barrels on December 1, 1920.

The College of Agriculture at the University of Missouri will hold its 1922 Farmers Week from January 16 to 22 inclusive. This is the annual event at which lectures are given and demonstrations made of the work being done by the College.

On November 29, Secretary Eugene Smith of the Merchants Exchange posted the following notice on the bulletin board:

"Effective at once the Sampling Department will not accept any orders for treatment of cars containing live weevil or insects injurious to stored grain, with bisulphide of carbon. Orders will be accepted for treatment of cars with Boncar, or carbon tetrachloride."

The railroads centering here have objected strenuously to the use of carbon bisulphide, on the score of inflammability, danger to human life and the disagreeable odor produced. Carbon tetrachloride has practically no odor and is not dangerous.

Winter wheat in Missouri and Illinois territory tributary to this market is generally going into the winter in good shape. There have been good snows and rains in several of the districts which had suffered from earlier drouths.

Shipments of grain by the Mississippi River Barge Line for the month of November were: Wheat, 38,010 bushels, corn, 614,300 bushels.

The Board of Directors of the Merchants Exchange have approved the recommendation of the Feed Committee of the Exchange, adopting as regulations for the governing of transactions in feedstuffs in this market the National Uniform Trade Rules governing Transactions in Feedstuffs. These rules have already been adopted by the Millers National Federation, the Grain Dealers National Association, the United States Feed Distributors Association, and other organizations.

The Missouri grain campaign for the Near East Relief began Thanksgiving week. Every mill and elevator in the state has been asked to act as a receiving agent. Headquarters for the Missouri campaign are maintained at 1423 Chemical Building, St. Louis.

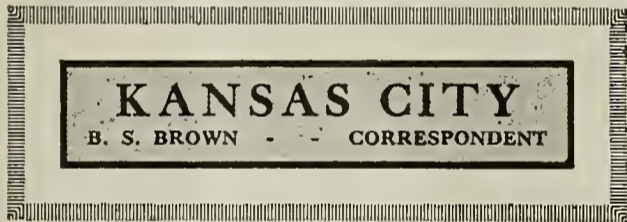
Considerable interest has been shown here in the school now being conducted by the Federal Grain Supervision office at Chicago, under the direction of O. F. Phillips, Chairman of the Board of Review, and B. A. Rothgeb. The aim of this school is to familiarize the grain inspectors and supervisors in the new grades on grain sorghums prepared by the Federal office, and so far adopted by nearly all the markets that handle any quantity of these grains. The grades are tentative at present, as they have not yet been formally adopted and put into effect under the Grain Standardization Act, but the instruc-

tion now being given by Mr. Rothgeb, who is one of the best posted men in the country on grain sorghums, is preparing the inspectors and supervisors in a manner that will bring about a uniformity in the grading of these more quickly than probably could be brought about in any other manner.

Last week St. Louis was represented in the school by Chas. Barron, Federal Supervisor, John Grischy, Assistant Chief Inspector of Illinois State Inspection, and Chas. Wilson, Manager of the Merchants Exchange, Sampling Department. T. M. Scott, secretary of the Picker & Beardsley Commission Company, has just returned from Chicago, having spent two days of this week with the class, although the term of each class is five days. Mr. Scott is a member of the Grain Committee of the Merchants Exchange and also a member of Uniform Grades Committee of the Grain Dealers National Association, as well as being a large handler of grain sorghums in the St. Louis market. He returned home much elated with the manner in which the teaching of the new grades is being carried on, complimenting very highly the work of the Grain Standardization office.

Grain Supervisor P. Rothroek spent some time last month visiting Little Rock, Memphis and Nashville on business for his department.

Among the numerous recent visitors on the St. Louis Merchants Exchange, have been the following: W. P. Morris, of Morris Seed & Implement Company, Decatur, Ill.; J. E. Miller, representative for the Elmore-Schultz Grain Company at Des Moines, Iowa; W. C. Wilkes, president of the Northern Flour Mills Company, Portland, Ore.; Wm. Liggett, Seymour, Iowa; J. W. Lapsley, Keokuk, Iowa; C. W. Gammon, representative of the Valier & Spies Milling Company at Indianapolis, Ind.; P. W. Prichard, Overland Grain Company, Nashville, Tenn.; D. E. Peters of the M. C. Peters Mill Company, Omaha, Neb.; T. M. King, representative of the Valier & Spies Milling Company at Jackson, Miss.; Edward C. Richter, of Richter Grain Company, Cincinnati, Ohio; P. J. Daniels, representative of the J. H. Teasdale Commission Company at Quincy, Ill.; A. W. Lynch, of the Lynch Grain Company, Cairo, Ill.; C. B. Woods, Mexico City, Mexico; R. A. McCord of the Lilbourne Grain Company, Lilbourne, Ill.; J. S. Klingenberg of the J. S. Klingenberg & Son Grain Company, Concordia, Mo.; R. C. Zander of the Novelty Grain Company, Novelty, Mo.; M. S. Tanner, Scott County Milling Company, Sikeston, Mo. The Exchange was also favored by a visit from George C. Howe, managing director of Messrs. Wm. H. Prin, June & Co., Ltd., of London, England, and Dr. S. A. Ewing and Thos. Hogan of Melbourne, Australia. The two latter visitors were introduced by the Exchange's famous globe trotter, John E. Hall.



AN INCREASE in receipts at Kansas City and at the smaller Kansas markets, Wichita, Hutchinson and Salina, the first week in December was generally attributed to a moderate advance in prices at country stations. Country mills have been competing for limited offerings of good wheat and prices in some sections have shown relatively more strength than at terminals. It frequently has happened this season that Kansas City and nearby country prices have been a little out of line as a result of mill buying. In some sections there has been the usual year-end selling. Some Kansas City firms said their advices indicated that holiday demand for cash was partly responsible for the increased marketing of wheat. Some grain has been held back in the country in expectation of lower freight rates.

Representatives of steamship lines operating Shipping Board vessels from Gulf and Atlantic ports visited Kansas City recently, after a visit to St. Louis. There were 25 in the party, including railroad men. At a luncheon given by the Kansas City Board of Trade in the afternoon and a dinner later by the Southwestern Millers League complaints were heard against the service being rendered on both grain and flour for export. A better understanding was reached and good results are expected.

C. V. Fisher, for several years head of the C. V. Fisher Grain Company, is now with the Wyandotte Elevator Company, a subsidiary of the Southwestern Milling Company.

Rain or snow the first few days of December will be of great benefit to wheat in the southern two-thirds of Kansas, according to J. C. Mohler, secretary of the State Board of Agriculture. Very little snow was received in the counties on the north border, except those in the extreme northwest. The average fall in the central wheat counties was 4 to 10

inches. In Gray, Hodgeman, Rice and a few other counties in the central and southwest portions a high wind drifted the snow considerably. "The subsoil is very dry and will require much moisture to soak it," the report continues. "Very little wheat is being pastured in eastern Kansas, but rye pasture is reported good."

Wheat receipts at Kansas City in November, 3,227 cars, were the smallest of the season and were substantially under the movement a year ago and under the 10-year November average. Coarse grain receipts were also much smaller than a year ago and the 10-year average.

C. W. Lonsdale and E. R. Morrison, the latter attorney for the Kansas City Board of Trade, attended the recent meeting in Chicago called by Chester Morrill, assistant secretary of agriculture, to discuss the grain futures trading act. The principal exchanges and numerous branches of the grain trade were represented. The Kansas City exchange recently adopted amendments conforming to the new enactment. They are taking no part in the legal fight against the measure being conducted by individuals at Chicago, but have applied for a license as a contract market and will take no action until the Supreme Court rules against the law.

E. D. Bigelow, secretary of the Kansas City Board of Trade, received many remembrances and best wishes December 5, his eighty-third birthday. He became secretary 25 years ago and is one of the few re-



E. D. BIGELOW

maining charter members. He has been a member of the exchange more than 32 years and has seen it grow from an obscure market to one of the country's big primary wheat centers.

Harry K. Waggoner of the Waggoner-Gates Milling Company, Independence, Mo., has been elected a member of the Kansas City Board of Trade, on transfer from his father, W. H. Waggoner, deceased.

Initial deliveries on December contracts at Kansas City were 515,000 bushels of wheat, 475,000 bushels of corn and 205,000 bushels of oats. All the wheat was taken by the Southwestern Milling Company and was immediately ordered out, which was something of a surprise and had a temporary strengthening effect on the market. It is thought that further substantial deliveries will be made later.

The market has made surprisingly little response the past week or so to pessimistic crop news from the Southwest. There have been occasional rallies and the tone of the market has been steady, but prices are still close to the low levels of the season reached a month ago. West of the Missouri River, in an area embracing a third of the winter wheat area of the country, the outlook for the wheat crop is the poorest on record, for this time of the year, because of the prolonged fall drought. It is a situation that would be much more effective in putting prices up if it existed in the spring, but comparatively little impression has been made on sentiment because of the fact that the winter and spring precipitation may make a much more encouraging prospect when the growing season gets under way.

The first few days in December moderate snow

and rain fell in the dry area, which embraced Kansas, Oklahoma and Texas, relieving the drought to some extent, but the condition of the fields is so poor that the entire West seems likely to have a small crop next year. In many sections this moisture was the first that had fallen since early in the fall.

It is of course too early to estimate yields, but on the present acreage sown in Kansas and the low condition the outlook is not for more than 100,000,000 bushels.

Fred Hoose of the Norris Grain Company, Kansas City, has been elected a member of the Chicago Board of Trade.

Allen Logan of the Logan Bros. Grain Company, recently made extensive inquiries as to farm reserves of wheat and stocks in mills and elevators in the four important winter wheat states. The results showed that in Kansas farm reserves around the latter part of November were about 24 per cent and stocks in mills and elevators 12,877,000 bushels. In Missouri reserves amounted to 15 per cent while the supply in secondary hands was 985,000 bushels; Oklahoma, 12 per cent and 1,373,000 bushels; Nebraska, 24½ per cent and 1,084,000 bushels.

A recent report by the Missouri State Board of Agriculture estimates the cost of raising the 1921 corn crop at 62 cents a bushel of which 37.2 cents is actual operating expenses, including seed, and 24.8 cents is rental on land, figured at 40 per cent of the crop. The average farm value of the entire state, November 1, was about 40 cents, ranging from 25 cents in Atchison County to 70 cents in Ozark County.

The grain trade in the Southwest is still feeling the effects of congestion at Galveston. There has been some progress made in getting rid of the accumulated supplies of wheat there, but there is still a surplus, and the embargo against further shipments is still in effect and probably will be for some time to come. Consequently there is no incentive to make shipments to that market, except for mixing or other special purposes and general dullness is apparent in many branches of the trade. Every day brings further details of the unusual situation that has developed at Galveston. Losses to shippers have been enormous in many cases, both as a result of the declining market and the deterioration in quality. Hundreds of cars have been carried on track for weeks and weeks.

The last figures from there showed about 1,800 cars on track, which compared with close to 3,000 cars at the time the embargo was first put in force nearly two months ago. At the time the embargo was announced several thousand additional were en route. At the same time that grain on track has been cleaned up there has been a reduction in cars enroute also, so that the situation at present is not far from normal. The first of the month it was announced that tonnage for 375,000 bushels of wheat to be loaded this month had been arranged, which is a fair start. Kansas City firms recently shipped 100,000 bushels of good wheat to Galveston for mixing purposes with the lower grade grain.

Export trade at the Gulf ports the past few weeks has been dull and premiums have generally followed a lower trend. Foreign buyers have been in the market chiefly for parcels to fill out other cargoes. A little of the surplus wheat at Galveston has been sent to Mexico, but the total was too small to have any bearing on the general situation. There has been an occasional demand for corn from abroad.

An epidemic of a severe form of smallpox in Kansas City resulted in general orders by the health board for everyone to be vaccinated and for institutions of a public nature to take all precautions possible to prevent the spreading of the disease. The Board of Trade had two physicians who examined members and visitors and no new cards were issued to visitors unless they were vaccinated.

Charles T. Neal, who died recently in Omaha, was a member of the Kansas City Board of Trade from 1906 to 1917 and was well known among the grain trade in all parts of the country. When in Kansas City he was president of the Aylsworth-Neal-Tomlin Grain Company, which operated the Murray Elevator. He left when the Government Grain Corporation was organized to become second vice-president and regional director at Omaha. After the war he organized the Neal Grain Company at Omaha.

Financial conditions among country grain dealers are probably the worst in many years, according to reports by terminal concerns. The recent declines in grain have caused severe losses to many shippers and they are finding little or no opportunity to strengthen their position. Overdrafts have become almost a matter of routine and there are few concerns that have not carried paper of that sort recently. The policy has been to give the shipper every opportunity to make payment and it is not thought that the ultimate losses will be large. Mort-

gages have been given to cover many of the overdrafts. Recent easing of interest rates has not been a reflection of financial conditions in the country, it was said.

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Upon petition of the Farmers' Union Co-operative Association, a receiver has been appointed for the Frank B. Clay Grain Company of Kansas City. The receiver is Ben C. Moore, who gave bond of \$10,000, signed by W. T. Kemper and C. W. Lonsdale. The petition of the co-operative association tells the whole story. The Clay company had bought and sold grain for the Farmers' Union Co-operative Association, which has principal offices at Bison, Kansas. The grain company now owes the co-operative association \$5,114.06. The petition states that the Clay company had, in the course of its business, been compelled to accept long time notes and other property in lieu of cash, one such item being a large farm; and that the property so received was not acceptable at banks. The result is that the grain company, though having assets probably in excess of \$150,000, is practically unable to meet its immediate obligations, which reach it is said about \$25,000. The grain company, by its president F. B. Clay, admitted allegations, and joined in the request for a receiver to conserve the valuable assets.

PHILADELPHIA

T. A. SIEBER - CORRESPONDENT

ACCORDING to the monthly report of the statistician of the Commercial Exchange, the stock of grain in public warehouses in Philadelphia on December 1 was: 2,659,222 bushels wheat, 143,343 bushels corn and 204,436 bushels oats compared with 2,489,946 bushels wheat, 252,358 bushels corn and 227,358 bushels oats on November 1, and 1,899,684 bushels wheat, 40,783 bushels corn and 256,842 bushels oats on December 1, 1920. Receipts of grain at Philadelphia during the month of November were: 7,296,942 bushels wheat, 350,458 bushels corn, 221,534 bushels oats, 14,860 bushels rye and 2,500 bushels barley. Exports from this port during the month of November were: 6,773,974 bushels wheat and 392,659 bushels corn.

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John O. Foering, former chief grain inspector of the Commercial Exchange, and wife have left for Dunedin, Fla., where they will stay for the winter.

* * *

S. S. Boas of Fairmount, Lancaster County, Pa., has harvested the best crop of corn in that section and is said to be the finest in quality. He obtained 75 bushels of shelled corn from the acre.

* * *

Norwood P. Holland, recently appointed manager of the E. L. Rogers & Co., grain and hay merchants, has returned to his office after being confined to his home for nearly five weeks with bronchial pneumonia.

* * *

Levan & Boyd Company, grain and feed merchants, has moved its office to 591 Bourse Building.

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The feed business of Bert Herriott at Jamestown, Pa., was recently purchased by Russell Urbt and F. Ivan Law, who will hereafter trade under the name of Webb & Law.

* * *

Maurice B. Smyser has obtained the title to the property of Strayer Bros., York, Pa., which consists of a large grain and feed warehouse together with machinery and appliances used in the handling of grain and kindred products. Forty-two thousand dollars is given as the consideration.

* * *

The Parker Commission Company has been designated as forwarding agents for the American Relief Administration, handling all its supplies, and continuing in the same capacity with P. N. Gray & Co., Inc., of New York, N. Y.

* * *

Megec Steer Company, Hudson Shipping Company, Inc., John L. Turnbull, representing Furness, Withy Company, W. A. Lansker, I. Ginsburg and National Flour Company, have been elected to membership in the Commercial Exchange.

* * *

Columbia V. Miller, widow of the late L. F. Miller, founder of the grain firm in Philadelphia of that name, died November 14 at her late residence 1521 Lehigh Avenue.

* * *

Frederick Rasmussen, secretary of Agriculture of Pennsylvania, in a statement on wheat grading, said it was bound to come as soon as the farmers of Pennsylvania awoke to the fact that they were losing money under the present system. Mr. Rasmussen said he had evidence that carelessness in handling wheat caused direct loss to the farmer. He claims he can add \$2,000,000 to farmers' bank accounts in a few years if a grading plan, such as adopted for potatoes and apples, can be secured for wheat. Demonstra-

tions of the method of grading wheat are being conducted by the Bureau of Markets. The actual method of grading is being shown by the use of a portable equipment for use at country shipping points. Demonstrations have been made recently in Berks, York, Center and Erie Counties and will be made shortly in Union, Adams and others.

* * *

Albert J. Dando, elevator agent of the Pennsylvania Railroad, has returned to his office in the Bourse after being confined to his home for several weeks with an attack of typhoid fever.

* * *

Emanuel H. Price and Winfield S. Woodward, representing the Commercial Exchange, have returned from the convention of the Atlantic Deep Waterways Association, held at Savannah, Ga., November 15 to 18. James T. Kernan, secretary of the Philadelphia Maritime Exchange, was appointed chairman of the Credentials Committee of the Association at the Savannah convention.

* * *

Samuel H. Young, grain and feed merchant, has returned to his business after having been confined to his home with a nervous breakdown.

* * *

The Osceola Trading Company, Lancaster, Pa., has been incorporated under the laws of Pennsylvania, to deal in grain, etc., with a capital of \$5,000. The incorporators are Jacob S. Shirk, Gordonville, Pa., and John S. Zimmerman, Lancaster, Pa.

* * *

The City Council of Erie, Pa., considered the claim made by the Pennsylvania Railroad Company for exemption from taxes on the grain elevator and tower located at the old Anchor Line Docks, on November 15. The grain elevators are assessed at \$140,000 and the tower at \$25,000 in the new assessment.

* * *

Frank M. Turnbull, who is now eastern representative of the Hall-Baker Grain Company of Kansas City, with offices in the Bourse, has returned from a two weeks' business trip through Pennsylvania where he was visiting millers. He says he found business extremely dull, that many mills were entirely shut down and to say the least the trade is very discouraging, and that the farmers are not willing to sell their wheat at the present time, but are holding for a higher price.

* * *

Wm. P. Brazer & Sons received the first new corn in this market November 7. The shipment was made from Kent County, Del., and contained 600 bags of new Yellow corn. It was in splendid condition and graded No. 2 Yellow, weighed 56½ pounds to the bushel, contained 15 per cent moisture and sold for 61 cents on the dock.

* * *

According to the figures issued by the statistical bureau of the State Department of Agriculture, weather conditions caused a marked decline in the Pennsylvania oats crop. The aggregate of the crop was 22,511,859 bushels, or nearly 811,000 bushels less than in the previous year. The acreage was 1,146,543. Berks, Somerset, York and Westmoreland Counties were the leading producers.

* * *

The number of cars unloaded at the Girard Point Elevator during the month of November, 1921, was: 2,221 wheat, and 146 corn; at Port Richmond Elevator, 2,207 wheat, 18 corn and one rye; at Twentieth Street Elevator, 13 corn, 56 oats, one rye and four buckwheat; making a grand total of 5,607 cars.

* * *

Attempts to eliminate the middleman by co-operative dealer buying associations were repudiated by the Southeastern Pennsylvania Feed Merchants Association when the following resolution was unanimously adopted at a recent meeting held at Lansdale, Pa.:

"Whereas, there has been organized a number of concerns throughout the country, whose object is to act as purchasing agencies for retail dealers, and

"Whereas, one of the methods employed is that of selling stock to retail dealers, and

"Whereas, in our opinion these purchasing companies do not perform a service commensurate with the charges made, and

"Whereas, the methods of these concerns are diametrically opposed to the interests of the feed distributors; therefore, be it

"Resolved, that the Southeastern Pennsylvania Feed Merchants Association in convention assembled, go on record as being opposed to the principle of, and the method employed by such buying associations."

Among other business of the meeting a committee was appointed to compile a list of recognized feed dealers. The application for membership of the Samuel L. Shively Company of Jenkintown, Pa., was accepted by the Executive Committee.

IT IS stated by H. A. Wickstrom, chief grain inspector for the Port of Galveston, that a total of 3,175,000 bushels of wheat was exported through there during the month of November as compared with 2,276,378 bushels for the preceding month. During November a total of 68,571 bushels of rye also was exported through Galveston, all of the latter grain going to Venice.

TOLEDO

C. O. BARNHOUSE - CORRESPONDENT

EASTERN standard time was adopted by vote of the people of Toledo at the November election and became effective November 27. This causes the Produce Exchange sessions to open at 10:30 a. m. and close at 2:15 p. m. which correspond to 9:30 a. m. and 1:15 p. m. in Chicago.

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J. C. Husted, represented the Toledo Produce Exchange at the hearing on the Capper-Tincher Law in Chicago, November 17.

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L. A. Mennel, of Mennel Milling Company, Fred Mayer, of J. F. Zahm & Co., and Kent Keilholtz, of Southworth & Co., attended the fall convention of the Ohio Millers Association in Columbus, November 15 and 16. H. R. Devore, president of the Exchange, attended the International Livestock Exposition at Chicago.

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Joseph Banforth, representing Simpson, Hendee & Co., of New York City and H. L. Frisinger, of Moser & Frisinger, of Rockford, Ohio, called on the Raymond P. Lipe Company not long ago.

* * *

H. C. Dachsteiner, grain dealer of Waldron, Mich.; O. A. Meyer, manager of Erlin Grain & Supply Company, Erlin, Ohio; Fred Hanna, miller of Pioneer, Ohio; and E. R. Riethmiller, of S. M. Isbell & Co., of Jackson, Mich., were recent visitors at the office of W. H. Morehouse & Co.

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Jack Lawrence, of the Schissler Seed Company, St. Louis, Mo., and Homer Flanagan, of the Crawfordsville Seed Company, of Crawfordsville, Ind., called on the seed trade here last week.

* * *

The following callers from Chicago were on Exchange recently: W. E. White and W. C. Renstrom of the J. Rosenbaum Grain Company, J. E. Delaney, of E. W. Wagner & Co., Fred Bascom of Bartlett Frazier Co., and Geo. M. Bingham of Thompson & McKinnon.

* * *

Hal Fischer, representing Northrup, King & Co., of Minneapolis, Minn., called on J. F. Zahm & Co., recently.

* * *

Kent Keilholtz, of Southworth & Co., and W. A. Boardman, of The East Side Iron Elevator Company, were recipients of the 32nd degree in Masonry at the fall reunion of Toledo Consistory A. A. S. R. this week.

* * *

E. G. Brewer, a representative of the United States Department of Agriculture, of Washington, D. C. who has charge of the "corn borer" quarantine in northern Ohio visited the Produce Exchange and conferred with the Toledo grain shippers and receivers, December 10.

* * *

Other recent callers at the Exchange were: Eli Short, of Stryker, Ohio; A. J. Fetterman, of Haskins, Ohio; G. O. Cruikshank, of Leipsic, Ohio; Louie Sloan, of Grelton, Ohio; C. H. Kortier, of Bradner, Ohio; P. Lugenbill, and P. Short, of Archbold, Ohio and Wm. Jossman of Detroit, Mich.

* * *

About 25 of the farmers elevators, located in the territory surrounding Lima, Ohio, have been merged into a shipping association to be known as the Ohio Central Equity Exchange Association. The headquarters will be at Lima where they expect to erect a large transfer elevator of sufficient capacity to handle the shipments of member elevators, whose annual business amounts to about 2,500 cars of all kinds of grain. D. A. Bricker, of Convoy, Ohio, was elected president; A. C. M. Fetter, of Weilersville, Ohio, vice-president and J. O. Coss, of Lima, Ohio, secretary-treasurer.

* * *

The large hay warehouse of the Raymond P. Lipe Company, was destroyed by fire November 16. About 400 tons of hay was burned with a loss of \$15,000. Origin of the fire is unknown.

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The managers of the farmers' elevators of northwestern Ohio held their monthly meeting at the Boody House, Toledo, November 29. About 25 were present.

* * *

Lee G. Macomber, traffic commissioner of The Toledo Produce Exchange, has filed with the Ohio Utilities Commission a complaint against 11 railroads entering Toledo, attacking present switching rules and charges declaring them to be unreasonable and too high, as compared with those in effect outside the state.

* * *

John A. Smith, of The S. W. Flower Company, returned Monday from a four weeks' trip to Florida.

NEWS FROM NORTHERN OHIO

BY T. J. CUNNINGHAM

Harley Althouse, of Versailles, was appointed by the County Farm Bureau Executive Committee as the Farm Bureau representative on the County Elevator Board, which was organized at Upper Sandusky recently.

The rotten corn loss in Hancock County was reported as running as high as 10 per cent in many fields.

An 800-acre farm in Ohio is able to show an annual increase of 8,000 bushels of corn, which, it is claimed, is due to new strains of corn and improved methods suggested by the Department of Agriculture. These suggestions have been followed for 20 years, and a careful record kept. The increase for the last 10 years averages 10 bushels an acre over previous years.

State Federal crop statistician, C. J. West, announced recently that the Winter wheat has never been in better condition in Ohio than it is this fall.

The elevator at Blakeslee, Ohio, is reported to have been destroyed by fire. It contained 1,000 bushels of corn at the time.

Extensive repairs are being made to the Monnett Elevator Company's elevator at Monnett, Ohio. A new wagon scale and a wagon dump will be installed, the elevator legs will be lengthened, all of the bins will be hoppers, and numerous other changes will be made so as to put the elevator in first-class working order. The elevator will be operated by The Sneath-Cunningham Company, Tiffin, Ohio.

The new elevator of the Carey Farmers Co-operative Company, Carey, Ohio, seems unable to get rid of its "hoodoo." Although completed nearly two years, it has never been used, and at last reports it was still idle awaiting the installation of meters.

Following a survey of the crops of 88 counties in Ohio, George U. Marvin, chief of the State Bureau of Markets, makes the grain crop 70 to 75 per cent of normal. Corn is best, with 90 per cent. In Fulton County, in the northwestern section, wheat averages 15 bushels, oats 25, and corn 45 bushels to the acre. In the southwestern corner, Shelby County reports wheat and oats poor in yield, with corn about 75 per cent of an average. Delaware County, in the central portion, reports wheat, corn and oats under normal.

On November 19, H. D. Miller, former manager of the Bucyrus Mill & Elevator Company, Bucyrus, Ohio, left for Florida where he will spend the winter.

Farmers in the territory between Millersville and Rising Sun are sowing an unusual amount of rye this year. The reason given is that rye is a much safer crop than wheat and less liable to be winter-killed.

At an annual meeting at Grand Rapids, Mich., members of the Gleaners' Clearing House Association, announced the intention of withholding their crops from the market until more favorable prices prevail. They own or control about 25 elevators in Ohio and Michigan.

County agents have procured samples of the European corn borers from Massachusetts, and will display them to farmers in the northern part of the state to aid them in recognizing the pest.

Hancock County's corn yield this fall was the best of any western Ohio county, according to C. J. West, Federal crop reporter. The average yield was 44 bushels an acre, with 74 per cent merchantable.

In Sandusky County, one wheat field sown 11 days before fly free date, was found to be entirely infested with Hessian fly.

It is reported that the Ohio Central Equity Exchange Association will build a large elevator at Lima, Ohio, with a handling capacity of 6,000,000 bushels of grain annually. The exchange represents 20 co-operative elevators in Ohio and eastern Indiana. D. A. Bricker, Convoy, Ohio, is president, and J. O. Coss, Lima, secretary-treasurer.

In Fremont, the average daily loss of coal from the Wheeling & Lake Erie Railway, by thieves, is fixed at three tons.

The Erie Lumber & Supply Company has purchased the flour mill of the Sandusky Milling Company, and will operate it as a saw and planing mill.

Arthur Powell is now personally looking after his elevator at Kansas, Ohio. His former partner, Mr. Mitchell, is no longer associated with him.

On Friday, December 9, C. W. Bransford, of the Bransford Milling Company, Owensboro, Ky., called upon the millers of Tiffin in the interest of the Com-

munity Millers Association, and we are informed that he was quite successful. The membership of the Community Millers Association is made up of millers whose plants have a capacity of 200 barrels or less.

Of late, coal salesmen have been complaining of numerous cancellations of orders due to the continued warm weather. The freezing weather and snow of the past week should help out that situation.

The first of a series of meetings has been called by State Director of Commerce Phelps, to determine whether freight rates on grain and agricultural products are excessive. The actual investigation is in the hands of George J. Bolander, traffic expert of the Kalamazoo Chamber of Commerce.

At least four bushels more corn per acre may be had from seed that is dried carefully, over that picked from the crib in the spring, according to recent tests made at the Ohio Experiment Station Farm at Wooster.

Charles Latchaw and R. W. Graham of Defiance, spoke at the recent monthly meeting of Northwest Ohio Grain Dealers Association in Bowling Green.

After T. H. Parks, state entomologist, had made an investigation of wheat plants here, December 8, he announced that the wheat is practically free from the Hessian fly and is expected to yield better next year than for many years.

The wheat in this section has in no way been injured by the weather, and is still in excellent shape. The alternate mild and freezing weather has gradually toughened the wheat so that it will be better able to withstand a real, hard freeze.

There has been an increased movement of wheat during the past two weeks, but the present set back in prices may have the effect of checking it again.

The writer recently received a letter from his brother, who is chief engineer of one of the big lake freighters. The letter was dated November 28, from the Straits of Mackinaw, and as it is quite interesting and gives quite a vivid picture of life as it is lived on the big grain carriers to-day, part of it is quoted herewith: "We took a load of hard coal to Milwaukee, but as they were anxious for us to get up to Lake Superior for a load of grain, they worked night and day unloading us so that we were not long in Milwaukee, having arrived late Saturday and leaving again Sunday afternoon. Had a stiff head-wind up Lake Michigan, and had to fill up pretty well with water and ease up on speed to keep from pounding. These boats make quite a fuss in a seaway, when they are light. Don't know whether we are to go to Ft. William or Duluth, but will possibly receive orders at the 'Soo'—or by wireless, as our outfit is in commission now. Last night the operator could hear the Chicago Grand Opera program. Some parts of it were faulty, but if our equipment included a vacuum tube instead of a crystal detector, it could all be heard very clearly. We pick up messages from boats on the ocean, and have received messages sent out from Berlin. It is quite interesting. The high-powered station, at Arlington, sends out the time and weather broadcast over the country at 10 p. m. Before doing this, they send out a warning, which is a series of dashes—25 or 30—repeated three or four times, with a long dash indicating the time on the hour at 10. All other stations keep quiet and listen in when the warning is sent out, and tune their instruments to the proper wave length—about 600 meters—which makes it easier to hear. The amateurs are confined to 200 meters, which keeps them from interfering. After the time and weather, the press news is sent out, and of course, we pick up the very latest news. They are reporting eight inches of ice in the slips at Ft. William, so we may have some ice to break before we get back, if the weather continues cold. A lot of boats will lay up in various ports this winter with grain in storage. At Buffalo, 42 boats were lying behind the breakwater with grain for winter storage."

According to figures just compiled there was a total of 1,598,047 tons of coal shipped from the Pennsylvania Railroad docks, at Sandusky, during the navigation season just ended, as against 1,440,618 tons in 1920 and 1,287,100 in 1919.

On the first of the year Miss Mary Kuntz, business manager of the Leipsic Grain Company, Leipsic, Ohio, will take office as treasurer of Leipsic.

The new elevator of Wm. Gregg & Sons, at Upper Sandusky, is now under roof. During the early part of last week the metal siding was being put on. Some concrete work in the pits still remains to be done, but the contractor expects to have the elevator completed by the first of the year at the latest.

REPORTS from many parts of the Province of Ontario that grain is germinating in the shock owing to the long spell of wet weather are causing some concern as to the supply of a sufficient quantity of seed grain of high germinating quality

for next year. Hon. J. A. Maharg, Provincial Minister of Agriculture, is having a questionnaire sent to all the crop correspondents of the Department of Agriculture to ascertain how much of the grain yet unthreshed has been affected and the probable quantity of wheat from early threshing still held in the farmers' granaries. Mr. Maharg is also securing from the Saskatchewan Co-operative Elevator Company information as to how much wheat the company has in store in its elevators, and every effort is being made to secure all the information available at the earliest date so as to prevent any possibility of a shortage of good seed next spring.

NEW FEED ARBITRATION COMMITTEE

President Ben E. Clement of the Grain Dealers National Association has appointed the following Arbitration Committee to act in disputes in feed transactions: J. A. Caldwell of the Ralston Purina Company, St. Louis, Mo.; H. R. Wilbur of the Ames-Burns Company, Jamestown, N. Y.; and Jay Canfield of the Fraser-Smith Company, Minneapolis, Minn.

FARMERS' DEALERS OF SOUTH DAKOTA

As we go to press, December 13-15, the Farmers Grain Dealers Association of South Dakota is holding its annual convention at Huron. Among the features of the program is a debate on Terminal Marketing between Frank M. Myers, secretary of the U. S. Grain Growers, Inc., and B. F. Benson of the Minneapolis Chamber of Commerce. The principal speakers will be Governor W. H. McMaster of South Dakota and Ex-Governor Deneen of Illinois. The latter will speak on "World Conditions and the Co-operative Movement." President John T. Belk will preside.

REDUCTION IN RATES

Transportation Commissioner W. K. Vandiver of the National Association recently issued the following statement as to rates:

The Interstate Commerce Commission has issued Special Permission 55940 relating to a proposed reduction of 10 per cent in all rates throughout the United States on products of the farm, garden, range and orchard. The details are quite lengthy and among other commodities specific mention is made of various grains and grain products.

On certain traffic to New England points, the carriers are authorized to make the reduced rates effective on notice of five days; on all other traffic they are authorized to give notice of one day. It is provided further that the new rates shall be filed with the Interstate Commerce Commission not later than December 31.

It is my understanding that this Special Permission was issued in compliance with a request from the carriers and that the reduced rates are to remain in effect for a period of six months as provided in a resolution adopted at a meeting of the railway executives in New York, November 16. It is also understood that any reduction in the rates made since the general advance, August 26, 1920, is to constitute a part of this 10 per cent.

The Mesa Co-operative Company of Roy, N. M., has filed a petition in bankruptcy. Its assets are \$27,614.38; its liabilities are \$47,958.32.

A petition in bankruptcy has been filed by the Griffith Union Grain & Trading Company of Ruff, Wash. The firm's liabilities are listed at \$52,154.60.

The Frank B. Clay Grain Company of Kansas City, Mo., has been placed into receivers' hands. B. C. Moore was appointed receiver by the court.

The Farmers & Merchants Elevator Company of Montevideo, Minn., has closed its doors. Its liabilities are \$65,000; assets, \$37,000.

A receiver has been appointed for the grain business formerly conducted at Frankfort, S. D., by Ed Lindgren. Liabilities of the firm amount to about \$65,000; assets, \$10,000.

The F. G. Sprague Company, grain and stock brokers of Fort Wayne, Ind., has gone into bankruptcy. The company's liabilities are \$897,128; its assets \$280,887. A receiver has been appointed.

E. P. Beaver is receiver for the Mardenis Equity Exchange which has elevators at Mardenis (Huntington p. o.), Roanoke and Simpson, Ind. The assets of the company are \$45,000; liabilities, \$70,000.

Judge Hazel of the Federal Court at Buffalo on December 5 placed the Curtiss Grain Corporation of Buffalo, N. Y., into receivers' hands. William A. Riley and Maxwell M. Nowak were named as receivers.

BASED on a yield of 10 bushels per acre, farmers of Wells County, Minn., figure the cost of raising wheat this year was \$1.58 per bushel. This means quite a loss—on paper.

IN SPITE of the severe drought, the Netherlands produced 8,686,000 bushels of wheat, 16,645,000 bushels of rye; 3,651,000, barley; and 21,288,000, oats. The totals of wheat, rye and oats are from 25 to 500 per cent more than last year.

IN 1920 the Panama Canal passed 18,042 tons of wheat from Pacific ports to Atlantic and Gulf ports. In the same time 355,524 tons of flour were shipped from Pacific to Atlantic and Gulf Seaboard.



EASTERN

Capitalized at \$20,000, the Hinman Coal & Grain Company has been incorporated at Medway, Mass.

The 12,000-bushel elevator of the Light Bros. at Littlefield (Avon p. o.), N. Y., has been completed.

James Slayton of Naples, N. Y., has sold his grain and feed business to J. R. Fenton, who formerly had a flour mill at Canandaigua, N. Y.

The Farmers Co-operative Exchange has purchased the grain business of D. H. McHugh at Middlebury, Conn., formerly operated by Thomas & Weeks.

A new grain elevator is to be erected near the present elevator of the City Grain Company of Marlboro, Mass., for that concern. The addition will have capacity for between four and five carloads of bulk grain.

Extensive changes are being made to the Cosby plant at Brattleboro, Vt., which is now operated by the Chas. M. Cox Company of Boston, Mass. It is probable that they will build a new building, installing feed machinery.

IOWA

The new elevator of D. E. Benton at Westside, Iowa, has been completed.

M. Adams succeeds J. J. Hemingson as manager of the Farmers Elevator Company at Ireton, Iowa.

The capital stock of the Farmers Grain Company at Latimer, Iowa, has been changed to \$40,000.

The Farmers Elevator Company of Waukee, Iowa, has equipped its plant with a 10-ton scale and dumps.

Kirby Shadle is succeeded as manager of the Farmers Co-operative Company of Greenfield, Iowa, by O. N. Olson.

A motor has been installed and repairs made to the elevator of the Farmers Elevator Company at Bagley, Iowa.

The capital stock of the Farmers Elevator Company of Holstein, Iowa, has been increased by a new issue of stock.

The Farmers Union Grain Company of Lake View, Iowa, has equipped its plant with a new Howe 10-ton Motor Truck Scale.

Ellen A. Kessler is president of the Kessler Grain Company which was recently incorporated at Marshalltown, Iowa. Its capital stock is \$25,000.

The warehouse of the Farmers Co-operative Exchange at Knoxville, Iowa, is to be enlarged in order to handle a full line of feeds in addition to salt.

The elevator of the Ray Grain Company of Maxwell, Iowa, of which Fred O. Ray is proprietor, has been purchased by the King-Wilder Grain Company.

The capital stock of the Independent Grain & Lumber Company of Mason City, Iowa, has been increased from \$250,000 to \$350,000. E. W. Taylor is vice-president and C. H. Hamlin, secretary.

Machinery, including a Eureka Cleaner, poultry feed polisher, cracked corn separator, grinder, Eureka Automatic Separator, Bird Scale, power shovels, attrition mill and motor, is to be installed for the May Grain Company of Independence, Iowa.

WESTERN

Wm. Klussman of Irving (Eugene p. o.), Ore., will equip his plant with a new grain cleaner.

The new 15,000-bushel elevator of the Equity Co-operative Exchange at Raymond, Mont., has been completed.

The offices and warehouses of the Wyoming Mill & Elevator Company at Cheyenne, Wyo., are being remodeled.

The Northern Grain & Warehouse Company of Musselshell, Mont., is conducted under the management of Roy O. Traer.

S. W. Pickering & Co., of Montesano, Wash., have purchased an interest in the C. C. Strayer Grain Company of Aberdeen, Wash.

The Northern Grain & Warehouse Company of Seattle, Wash., has placed the West Seattle Elevator, which it recently purchased, into operation.

A 25,000-bushel cribbed elevator with 11 bins has been completed at Woodside, Mont., for the Missouri Mercantile Company. The elevator is

motor driven throughout; it has a leg capacity for 1,500 bushels, a 10-ton scale, 100-bushel hopper scale and a dual cleaner.

The Farmers Union Elevator Company has been incorporated at Deertrail, Colo., by A. Peterson and J. C. Ballard. The company is capitalized at \$20,000.

The elevator of the Farmers Mutual Grain & Supply Company at Coffee Creek, Mont., has been discontinued by the P. F. Brown Company, of Lewis-town, Mont.

The elevator, coal sheds and warehouses of the Wyoming Mill & Elevator Company at Burns, Wyo., have been purchased for \$4,000 by the Farmers Elevator & Milling Company.

The elevator of the Washington County Farmers Union at Akron, Colo., has been overhauled and equipped with new blower, car puller and 10 horsepower motor. Other machinery in the elevator has been repaired.

Extensive improvements have been made to the branch of the Nicholls-Loomis Company of Los Angeles, Calif., at Santa Ana, Calif. A new warehouse has been constructed and new machinery for cleaning grain has been installed.

CANADA

The Keppner Elevator Company, Ltd., of Winnipeg, Man., has been incorporated.

The Peaker-Gibson Grain Company of Winnipeg, Man., is succeeded there by the Peaker Grain Company.

The Brooks Elevator Company of Fort Williams, Ont., will construct an addition to its elevator at a cost of \$30,000.

Parrish & Heimbecker, grain merchants of Winnipeg, Man., contemplate the erection of an elevator at Port Arthur, Ont.

N. M. Patterson is contemplating the erection of a new elevator at Fort William, Ont. He has bought the site for the elevator.

The Prince Albert Elevator Company, Ltd., of Prince Albert, Sask., has been incorporated and registered with a capital stock of \$20,000.

The construction of a grain elevator at Montreal, Que., is contemplated by the Harbor Commission. M. P. Fennell is secretary of the commission.

A charter to operate under the laws of the Province of Ontario has been taken out by Davidson & Smith, grain and elevator operators at Ft. William.

George Langley has been elected to the presidency of the Saskatchewan Co-operative Elevator Company of Winnipeg, Sask. He succeeds H. A. Maharg.

The Gillespie Elevator Company of Edmonton, Alta., has engaged J. B. Stewart as manager. He was formerly manager of the United Grain Growers at Olds, Alta.

The elevator of the Terminal Grain Company, Ltd., of Calgary, Ont., has been purchased by the Home Grain Company, Ltd. It will operate the elevator under the management of R. M. Mahoney.

Construction has commenced on the addition to the Northwestern Elevator Company at Fort William, Ont. It is announced the building will be completed next spring and will be ready for operation by the middle of next September. The elevator addition will cost \$700,000 and will consist of 50 concrete tanks, 22 feet in diameter and 95 feet high, giving the plant an aggregate capacity of more than 900,000 bushels. Cleaning machinery will be installed to clean 8,000 bushels of grain per hour.

INDIANA

The new elevator of H. H. Crum at Milan, Ind., has been completed and is ready for receiving grain.

The Farmers Co-operative Elevator Company of Ligonier, Ind., has engaged Frank O'Dell of Geneva as manager.

A feed grinder and crusher are to be installed in the elevator of the Farmers Co-operative Elevator Company of Seymour, Ind. The company has started a branch feed store and grain exchange at Brownstown.

A grain elevator is being erected at Lawrence, Ind., for the Farmers Terminal Grain & Feed Company. The elevator has a capacity of 6,000 bushels. Modern machinery for cleaning and

grinding will be installed. The company also operates at Indianapolis, Cumberland and Bridgeport. V. Welling is branch manager at Lawrence.

The elevator of George O. Dunn at Philadelphia (Greenfield p. o.), Ind., has been purchased by R. E. Whitaker.

The E. N. Cook Elevator office at Plymouth, Ind., has been remodeled and a new floor laid and the office painted.

Martin Cutsinger has leased the elevator of the Nading Bros., at Flat Rock, Ind. W. R. Nading will be manager.

The Stafford Grain Company of Mooreland, Ind., is succeeded in business there by the Mooreland Co-operative Company.

The Fowlerton Elevator & Feed Company of Fowlerton, Ind., has completed its new coal bunkers and 22x72 foot warehouse.

The new 15,000-bushel elevator of the Spiceland Grain Company at Spiceland, Ind., has been completed. Fred Paul is manager.

A larger building has been put in at Guernsey (Reynolds p. o.), Ind., for E. C. Kellenburger. It will be used for grain storage.

O. S. Torbet has resigned as manager for the Farmers Mill & Elevator Company at Columbia City, Ind. He is succeeded by F. O. Fagler.

H. O. Batman, Ora Heathe, Ray Sallust, H. Hostetter and Morton Smith have incorporated at Bainbridge, Ind., as the Bainbridge Co-operative Association.

The capacity of the Co-operative Elevator at Winamac, Ind., is to be increased. Another building has been secured which will be used in the business.

The Gessie Grain Company of Gessie, Ind., has installed a feed grinder in its new warehouse. This will necessitate the installation of another 10 horsepower engine.

The Indiana Grain, Feed & Coal Company of Crawfordsville, Ind., has been dissolved as a corporation. Other companies, it is reported, will take over the business.

The elevators at Columbus and Nortonburg (Hope p. o.), Ind., are now operated by F. C. Griffith. The elevators were formerly owned and operated by H. C. Griffith who died last February.

SOUTHERN AND SOUTHWESTERN

The W. B. Johnstone Company will rebuild its elevator at Pond Creek, Okla.

The elevator of the Farmers Elevator Company at Hobart, Okla., is to be enlarged and improved.

The Oklahoma City Mill & Elevator Company succeeds the Bolin Hall Grain Company at Beaver, Okla.

Considerable interest is being shown by the State Market Bureau of Atlanta, Ga., in the erection of a grain elevator at Cochran, Ga.

The Farmers Co-operative Elevator Company of Mangum, Okla., is interested in the erection of a new 15,000-bushel elevator at Brinkham, Okla.

A Schuler, H. C. Hutson and W. S. Corbin have incorporated at Chickasha, Okla., as the Expansion Grain Company. Its capital stock is \$30,000.

A grain elevator is to be established at Smithville, Ga., for J. W. McDonald, who now has a flour mill there. The building will be 30x24 feet.

The plant of the Moore Grain Company at Chickasha, Okla., is to be purchased by Jno. H. Snyder and F. L. Slusher. They will incorporate and operate it.

The Siegel Grain Company of Dallas, Texas, is contemplating the opening of a branch office at Wortham, Texas. The company will also operate an elevator there.

W. M. Dukes, L. C. Langwell and B. M. Nash have incorporated at Paden, Okla., as the Farmers Union Co-operative Exchange. The exchange is capitalized at \$50,000.

The Alabama Flour & Grain Company, capitalized at \$2,100, has been incorporated at Birmingham, Ala. J. W. Davenport is president; Chas. B. Taylor, vice-president and S. J. Hollock, secretary and treasurer.

Daniel Volmer's new 30,000-bushel elevator at Anadarko, Okla., has been completed. It is equipped with a 25-horsepower Fairbanks-Morse

Motor, cleaner, pitless sheller, two stands of elevator legs, ear corn feeder, and three high six roller corn mill.

A grain elevator of 25,000 bushels' capacity is being erected at Driftwood, Okla., for members of the National Wheat Growers. The elevator is of concrete construction and is fireproof.

J. W. McDonald is building a grain elevator of 3,000 bushels' capacity at Wells' Mill, near Americus, Ga. Modern machinery, including corn shucker and sheller, has been installed.

The Pascagoula Grain, Feed & Fertilizer Company has been organized at Pascagoula, Ala., with E. E. Krebs as manager. The company will deal in grain, feed, commercial fertilizers, etc.

A grain elevator of tile or wood construction with capacity for 20,000 bushels is to be erected at Ninnekah, Okla., for the Ninnekah Grain & Lumber Company. J. F. Bird is manager.

The interest of Jesse Kitching in the Blair Grain Company at Texline, Texas, has been purchased by R. W. Blair. He will continue the business there and at Clayton and Dora, N. M.

G. Mertz & Co., have discontinued their business as grain dealers at Mobile, Ala. For over 30 years they have been engaged in the wholesale grain business, but now will handle produce only.

THE DAKOTAS

The Hunting Elevator Company of Baltic, S. D., is remodeling and repairing its elevator.

E. E. Robideaux succeeds J. E. Hannon as manager of the Farmers Co-operative Elevator Company at Parshall, N. D.

Livestock is to be handled by the Farmers Elevator Company of Valley Springs, S. D., in connection with its grain business.

The elevator of the Merchants Elevator Company of Davenport, Iowa, at Moorefield (Renner p. o.), S. D., has been sold by it.

The elevator of the Steinecker-Kutschmer Elevator Company at Ashley, N. D., has been purchased by the Brorz Elevator Company.

W. H. Stewart and four associates have purchased at sheriff's sale the Farmers Elevator at Wessington Springs, S. D. The consideration was \$7,500.

A potato warehouse has been completed at Hatton, N. D., by the Farmers Elevator Company. The firm expects to erect another one in the spring.

J. L. Towbermann is now located at the Beach, N. D. elevator of the Occident Elevator Company. He was formerly manager for the Occident Elevator at Hazen.

The elevator of the Farmers Equity Elevator Company at Oriska, N. D., has been leased by the Farmers Elevator Company. Lease extends until June 30, 1922.

Ed Alfsen has completed a new 40,000-bushel elevator at Melville, N. D. It is equipped with a double leg, 10-ton scale and 21-horsepower engine. The elevator has 16 bins.

Complete overhauling has been done to the elevator of the Farmers Elevator Company at Bloom (Jamestown p. o.), N. D. A new leg, cup, belt, rope drive and other new machinery have been installed. The elevator has also been re-sided and painted.

MINNESOTA AND WISCONSIN

The Milton Junction, Wis., elevator of L. Stoppenbach has been sold to Frank J. Albright.

Roy Faught has resigned as manager of the Equity Elevator located at Mapleton, Minn.

Repairs have been made to the elevator of George P. Sexauer & Son at Lake Benton, Minn.

The Monarch Elevator Company has purchased the Northwestern Elevator at Granite Falls, Minn.

The Farmers Elevator at Red Lake Falls, Minn., has been taken over by George Peterson and W. Schroeder.

Louis Hanson & Co., own and operate the elevator at Douglas, Minn., formerly owned by Ballard & Trimble.

The elevator of the Electric Steel Elevator Company at Ortonville, Minn., has been leased by the Equity Co-operative Exchange.

The elevator at Grey Eagle, Minn., has been purchased by the Little Falls Milling Company and will be remodeled by it preparatory to operation.

H. H. Theide has started in the grain business at Rochester, Minn. He was formerly manager of the Eyota Co-operative Elevator Company of Eyota, Minn.

To deal in grain, etc., the Overly Farmers Grain Company has been incorporated at Taylor, Wis., capitalized at \$25,000. The incorporators are M. Overly, O. Overly and M. Johnson.

The elevator of the Equity Co-operative Exchange at Afton, Minn., has been closed and W. E. Spriegel, formerly manager of the elevator, has

gone to River Falls, Wis. Howard Sanderson will take charge of the feed mill and coal sheds for the Equity.

Improvements are being made to the warehouse and store of the Stoughton Marketing Company of Stoughton, Wis. The flour and feed storage is being enlarged and made rat proof.

The W. L. McPeak Elevator Company of Waseca, Minn., has purchased the Palmer (Waseca p. o.), Minn., elevator of the Palmer Co-operative Farmers Elevator & Mercantile Company.

A new 10-horsepower motor for a corn sheller has been installed in the Rausch Elevator at Olivia, Minn. The elevator has been remodeled and a number of repairs have been made.

The plant of the defunct Culbert Milling Company at Minneapolis, Minn., has been purchased by the Viehman Grain Company. The firm owns and operates the Diamond Feed Mill and Elevator at Minneapolis.

The name of the Vandyne Farmers Co-operative Association at Vandync, Wis., has been changed to that of the Vandyne Co-operative Oil & Warehouse Company. The capital stock has been increased from \$5,000 to \$6,000.

Capitalized at \$100,000, the Farmers Elevator Company has been incorporated at Sleepy Eye, Minn. Henry F. Dohrmann, H. S. Romberg, J. A. Hillesheim, C. P. Cutting are the incorporators. The company will handle grain.

Articles of incorporation have been filed at Lakefield, Minn., by the Farmers Grain & Supply Company. The incorporators are: C. L. Noland, H. A. Peterson, A. L. Quevlo and John Peterson. The company is capitalized at \$35,000.

The elevator of the Traverse Elevator Company at Traverse (mail St. Peter), Minn., has been opened for business. The plant was closed down for several weeks during which time the finances of the company were straightened out.

Capitalized at \$100,000, the Terminal Grain & Elevator Company has been incorporated at St. Paul, Minn. C. E. Griffin is president; E. O'Connor, secretary and J. A. Gallagher, treasurer of the firm. The company has offices at 710 Globe Building.

OHIO AND MICHIGAN

The plant of the Seneca Grain Company at McCutchenville, Ohio, is being electrified.

Ed Amnon & Sons are succeeded at Gordon, Ohio, by the Gordon Grain & Mercantile Company.

The Sneath-Cunningham Grain Company is remodeling and enlarging its office at Bascom, Ohio.

The Farmers Elevator Company of Vassar, Mich., is now under the management of Frank B. Tinglanz.

The Waynesville Grain Company of Waynesville, Ohio, is being conducted under the management of O. H. Pool.

The Zeisler Bros. have purchased the elevator of the Strittmatter Grain & Milling Company of Lucasville, Ohio.

The capital stock of the Haviland Elevator Company of Haviland, Ohio, has been increased from \$50,000 to \$93,000.

C. G. Freeman no longer conducts a grain business at Pontiac, Mich. C. E. Dupuy operates the only elevator at that place.

Grain, feed, seeds, salt, etc., are to be handled at Elsie, Mich., by the Curtis Elevator & Supply Company. E. Jones is proprietor.

The new elevator of the Farmers Co-operative Association at Prattville, Mich., replacing the one which burned in January, has been completed.

The New Haven (Mich.) Farmers Elevator Company has purchased the New Haven property of the New Haven Elevator Company of Marine City.

D. M. Potter is succeeded as manager of the Green Creek Co-operative Grain Elevator Company of Green Creek (Fremont p. o.), Ohio, by R. G. Rogers.

The Bellevue Elevator & Warehouse Company at Bellevue, Mich., has been succeeded in business by the Bellevue Co-operative Elevator & Warehouse Company.

The Abrams-Burt Elevator and Flour Mill at Eaton Rapids, Mich., have been opened for business. Walter Abrams and David C. Burt are interested in the company.

At Maplewood, Ohio, the Pence Grain Company has been incorporated, capitalized at \$35,000. F. Baughman, James M. Pence, D. B. Pence and W. C. Meranda are interested.

Articles of incorporation have been filed by the Saunders Sales Corporation of Grand Rapids, Mich. The company will handle grain, hay, etc. Its capital stock is \$50,000.

A shipping company has been organized by representatives of about 20 farmers' co-operative elevators located in western Ohio and eastern Indiana to operate at Lima, Ohio, under the name of the Ohio Central Equity Exchange Association.

The company will build a transfer elevator. D. A. Bricker, Convoy, is president; A. C. M. Fetter, Weilersville, vice-president; J. O. Cross, Lima, secretary-treasurer.

A 10,000-bushel elevator and a 21x55 foot warehouse are being erected at Osborn, Ohio, for the Osborn Co-operative Grain Company. The elevator will be ready the latter part of December.

A piece of property 105x225 feet in Cleveland, Ohio, has been purchased by the Nickel Plate Elevator Company. It is understood that the elevator company will use the land in the future development of its plant.

Articles of incorporation have been filed at Jackson Center, Ohio, by the Jackson Center Grain Company. The incorporators are: F. Baughman, James M. Pence, D. B. Pence and W. C. Meranda. The capital stock of the company is \$25,000.

Virgil Vincent of Washington C. H., Ohio, is building a new grain elevator which will be entirely completed by the first of the year. A cupola 65 feet high is being built and a set of auto truck registering scales have been installed.

W. G. McAllister and George Johnson have purchased the elevator of the Saginaw Milling Company at Clare, Mich. Mr. McAllister was formerly manager of the Clare Hay, Grain & Bean Company and Mr. Johnson was formerly manager of the Saginaw Milling Company.

ILLINOIS

A wireless system has been installed by the Farmers Grain Company of Metcalf, Ill.

F. E. Good succeeds G. W. Morrison as manager of the Kewanee Farmers Co-operative Elevator at Kewanee, Ill.

The grain elevator and business of J. Henkle at Beason, Ill., have been sold by him to the Farmers Grain Company.

John Kinsella is planning upon building an elevator at El Paso, Ill., to replace the one which burned last July.

J. W. and Chas. E. Bookwalter have purchased the grain and mill property of John Trotter & Sons at Coal City, Ill.

The Jos. Schafer Mill & Elevator Company expects to build a concrete elevator at Springfield, Ill., in the spring.

Murphy & Ewing have completed their new 30,000-bushel elevator at Stanford, Ill. It was ready for operation during October.

The name of the Arnold Elevator Company of Arnold, Ill., has been changed to that of the Arnold Co-operative Grain Company.

A 3,000-bushel corn crib on cement foundation is being built at Hillsdale, Ill., for the Farmers Co-operative Elevator Company.

The Bollman Grain & Coal Company's elevator at Manlius, Ill., has been completely overhauled and is now in first class condition.

W. H. Whitelock & Sons of Arthur, Ill., have sold their Williamsburg, Ill., business to R. E. Bowers and have given possession of same.

The half interest of A. L. Arthens in Kellogg & Arthens has been purchased by Walter Powers. The business is located at Cambridge, Ill.

The 25,000-bushel elevator of the Andres & Wilton Farmers Grain & Supply Company at Wilton (Manhattan p. o.), Ill., has been completed.

Harvey Green has sold his interest in the grain business at Naples, Ill. The business is now operated as the Blackburn-Houston Grain Company.

G. A. Cope has sold his elevator at Tonica, Ill., to C. A. Pfund of Mendota. Mr. Pfund took charge on October 31. He also owns an elevator at Utica.

Fred W. Oakwood has purchased the elevator at Hillery (Danville p. o.), Ill., belonging to C. B. DeLong.

The capital stock of the Farmers Co-operative Association located at Fillmore, Ill., has been increased from \$20,000 to \$30,000.

The Farmers Elevator Company is building a new elevator at Barclay (Buffalo Hart p. o.), Ill. Ballinger & McAllister have the contract for the building.

The elevator of the Turner-Hudnut Company at Manito, Ill., is being conducted under the management of O. R. Wissman. He succeeds the late A. P. Cox.

The elevators of the E. B. Conover Company at Dawson, Elkhart and Kilbourne, Ill., have been purchased by the Fernandes Grain Company of Springfield.

J. W. Abbott of Chandlerville has purchased an interest in the Turner-Hudnut Company at Henry, Ill. He will take charge of it succeeding Chas. Greelee, manager for the last seven years, who has retired.

The Carter Grain & Lumber Company at Ottawa, Ill., has installed a new motor in its elevator at Dayton, Ill. It has also built a new storage and feed warehouse. At its place at Sheridan Junction

the company has made improvements including the installation of a truck scale, and building of a new office and lumber shed.

The two elevators at Filson, Ill., owned by the National Elevator Company, have been purchased by the Wells Bros. of Arthur L. Hall will remain in charge as manager.

A warehouse costing \$5,000 has been completed for the Farmers Elevator Company at Ipava, Ill., located adjacent to its elevator. The warehouse will be used for sidelines.

John W. Fogelson is no longer manager of the Hoopston, Ill., office of the J. C. Shaffer Grain Company. He expects to open a grain brokerage and commission business at Hoopston.

The elevator of the Farmers Co-operative Elevator Company at Dwight, Ill., which burned in September is to be replaced with a 40,000-bushel concrete plant. C. J. Schafer is manager.

The Farmers Co-operative Elevator Company has completed a new 40,000-bushel elevator at Woodland, Ill. The old house is being torn down and the lumber will be used to rebuild the lumber sheds.

The Farmers Co-operative Grain & Supply Company has completed its 16x48 foot warehouse and is now operating at St. Davis, Ill. The elevator has concrete foundation and floors and is covered with galvanized iron.

The Argenta Grain Company of Argenta, Ill., is succeeded there by the Argenta Grain & Milling Company. The firm has leased a mill which will be operated as the Argenta Milling Company with Hugh Martin as manager.

The elevator at Woodyard Station (Chrisman p. o.), Ill., has been purchased by H. C. Woodyard of Paris. He will engage in business under the name of the Henry C. Woodyard Grain Company with Oscar Jones manager. The elevator was the property of the National Elevator Company.

MISSOURI, KANSAS AND NEBRASKA

C. H. Hageman is now with the Farmers Elevator Company at Liberty, Neb.

A 10-ton wagon scale has been installed at Tilden, Neb., for the Tilden Grain Company.

The elevators of the Roca Farmers Elevator Company at Roca, Neb., are to be sold by it.

Plans are being made by the Ebersole Bros. for the erection of a grain elevator at Albany, Mo.

The elevator of the Farmers Co-operative Mercantile Company at Scribner, Neb., has been completed.

Capitalized at \$25,000, the Farmers Elevator Company has been incorporated at Milligan, Neb.

W. H. Betchel is succeeded as manager for the Farmers Union at Table Rock, Neb., by Oscar Wiar.

The elevator at Belle, Mo., has been purchased by the Farmers Exchange. W. E. Dehn is secretary.

The Grangers Co-operative Association of Lebo, Kan., has completed its new 20,000-bushel concrete elevator.

The elevator of the Equity Exchange at Pratt, Kan., is being repaired. A feed mill will also be installed.

C. B. Kellogg is succeeded as manager of the O. M. Kellogg Grain Company at Oxford, Neb., by L. F. Meier.

The new 25,000-bushel elevator of the Goodwin-Fletcher Grain Company has been completed at Marshall, Mo.

The Hammond & Edwards Company's elevator at Stockton, Kan., has been purchased by the Biggs Grain Company.

The Marysville Mill & Elevator Company has been incorporated at Marysville, Kan. Its capital stock is \$75,000.

F. D. Sharrer is successor as manager of the Farmers Co-operative Union at West Point, Neb., to Charles Mead.

The elevator of the Farmers Grain & Supply Company at Ashland, Kan., has been purchased by the Wallingford Bros.

C. P. Morgan succeeds D. V. McClelland as manager for the Farmers Elevator & Shipping Association of Kirksville, Mo.

The Lexington Milling & Elevator Company has purchased the business of the Farmers Elevator Company of Oshkosh, Neb.

E. A. Stillman has resigned his position with the Farmers Elevator Company of Burr, Neb. The resignation takes effect January 1.

The elevator of the Wilson & Hendrick Company at Brookline (Elwood p. o.), Mo., has been purchased by the Farmers Elevator Company.

Elmer Johnson has given up his position as manager of the Farmers Elevator Company of Louisville, Neb. He is going out of the grain business.

The elevator of the Dolphin-Jones Company at Wausa, Neb., has been purchased and is being remodeled by L. Hanson. The storage warehouse is

being enlarged for it is the intention of the company to carry a full line of feeds in addition to grain.

The elevator of Tom Howard at Falls City, Neb., has been sold by him to Wm. Steadman of Verdon and J. G. Evans. Possession was given November 1.

The Co-operating Shipping Association will erect a large warehouse at New Haven, Mo. It will add grain to the other lines of farm produce which it handles.

F. O. Richeson is no longer manager for the Krotter Elevator at Trenton, Neb. He has gone to Madrid where he will manage the elevator for O. M. Kellogg.

The Cherryvale Grain Company of Cherryvale, Kan., has been sold by H. V. Rounds to Leslie Jackson. Mr. Rounds has owned and operated the plant for 16 years.

E. J. Turner has purchased at receiver's sale the old elevator at Clifton, Kan., formerly owned by the Associated Mill & Elevator Company. He will use it as a private elevator.

The Farmers Grain & Supply Company of Canton, Kan., is under the management of A. Flook. He succeeds A. J. Miller, who has purchased the Canton Milling Company.

The Farmers Elevator & Supply Company of Clearwater, Kan., is succeeded in business there by the Farmers Co-operative Elevator Company. George G. Griffin is manager.

The Kellogg Grain Company has purchased the J. W. Vette Elevator at Grant, Neb. Mr. Vette retires from business. The Kellogg company also operates an elevator at Madrid.

The Farmers Elevator Company of Santanta, Kan., expects to build a 12,000-bushel elevator at Sublette, Kan., in the spring. It has put in scales, office and granary there already.

B. M. Smith, J. W. Wagner and E. B. Sterling have incorporated at Silverdale, Kan., as the Silverdale Farmers Union Co-operative Association. The organization is capitalized at \$15,000.

The elevator of the Trans-Mississippi Grain Company at Sumner, Neb., has been leased by E. A. Ericson who was formerly manager of the plant. He also purchased the old elevator of the Omaha

Elevator Company and equipped it with a 50-barrel flour mill and a feed mill. He operates as the Sumner Mill & Elevator Company.

The interest of M. E. Hinman in the Hinman-Yates Grain Company at Hutchinson, Kan., has been sold by him. The company is succeeded by the Yates Grain Company. R. C. Yates is manager.

The elevator of the Bell Grain Company at Wilmore, Kan., has been purchased by W. B. Joneson of Coldwater and is being operated now as the People Grain Company. E. F. Vance is manager.

The grain business and the 75-barrel mill of the Collins Roller Mills at Collins, Mo., have been purchased by J. W. Kelley and O. F. Kelley of Boonville, Mo. J. W. Kelley will operate as the Sac Valley Milling Company.

The elevator and mill of the Moline Mill & Elevator Company at Moline, Kan., have been purchased by the recently organized Farmers Mill & Supply Company. G. M. Knabe, H. H. Malone, C. W. Powers, J. W. White and W. C. Hendrix are interested.

The business of the Wilmeth Grain Company of Edna, Kan., has been taken over by C. S. Carlton, head of the C. S. Carlton Grain Company. He will handle grain, feed, hay and coal—merely the extension of the business which he has been conducting for some years.

The Blue Mound Farmers Union Co-operative Creamery & Store Association has been incorporated at Blue Mound, Kan., capitalized at \$4,000. J. H. Laird, John Massey and W. E. Nickelson are interested. The company will purchase and sell grain and other farm products.

J. W. Coad and the Peters Trust Company of Omaha, Neb., receivers for the Wells-Abbott-Nieman Company of Schuyler, Neb., have sold the plant at Schuyler to W. Dale Clark, for the consideration of \$90,000. Mr. Clark bought the plant for the creditor banks of the company.

The new 18,000-bushel elevator of the May Grain Company at Independence, Mo., has been completed. The machinery equipment includes a Eureka Cleaner, poultry feed polisher, cracked corn separator and grinder, Eureka Automatic Separators, scale, power shovels, attrition mill and motor.

OBITUARY

ALBERT.—On November 14, Fanning P. Albert died at New York. He was the oldest living member of the New York Produce Exchange and had been in the flour business for 58 years.

BARLOW.—Harry C. Barlow died at his home in Chicago, Ill., on November 29. Mr. Barlow had been traffic director of the Chicago Association of Commerce for 16 years. He was active in the Industrial Traffic League of which the Grain Dealers National Association is a member. His widow, one son and two daughters survive him.

BELL.—Robert Bell was killed in the elevator of the Ames Grain & Elevator Company at Ames, Iowa, where he was employed. He was attempting to dislodge a mass of chaff in a bin when the chaff fell upon him, smothering him.

BURK.—On November 22 G. A. Burk died suddenly at his home in Baltic, S. D. He was manager of the Western Elevator Company. His widow survives him.

CORNER.—On December 4 James J. Corner died. He was for years head of the grain and feed commission firm of J. J. Corner & Co., and was a member of the Baltimore Chamber of Commerce. Mr. Corner resided at White Plains, N. Y., at the time of his death.

BETTS.—Following an operation, A. H. Betts passed away at the Mt. Sinai Hospital, Milwaukee, Wis., on November 26. He was an old timer in the grain business and had conducted grain elevators both at Alexandria and at Mitchell, S. D., which was his home at the time of his death. At Mitchell he was associated with A. A. Truax from 1900 to 1906. At the time of his death he was operating 14 elevators in the state. His widow and five children survive him.

DEAN.—John Dean of Guthrie, Okla., died recently. He was engaged in the grain business there for many years.

KOEHLER.—After a protracted illness, Christian Koehler died at his home in Hastings, Neb. He was a well known grain and stock dealer. Three children survive him.

MASTEN.—A. E. Masten died at Pittsburgh, Pa. He was at the head of the A. E. Masten & Co., who maintain a grain service in connection with

their stock and bond department. He was at one time president of the Pittsburgh Stock Exchange.

PATTERSON.—R. H. Patterson died on November 15 from hemorrhage of the brain. He was a grain merchant of Pocahontas, Iowa.

SCHROEDER.—George A. Schroeder died on November 28 after an illness of pneumonia. He was from 1900 to 1920 manager of the traffic department of the Milwaukee Chamber of Commerce. Two sons survive him.

SCOTT.—On November 13 following an operation, Frederick Scott died. He was for many years a member of the Chicago Board of Trade.

SMITH.—Albert E. Smith died at home in Linwood, a suburb of Cincinnati, Ohio, last month, age 78 years. He was a member of the Cincinnati Chamber of Commerce for years and was prominent as a commission man and as president of the Lawrenceburg Roller Mill Company.

STOUGHTON.—On October 28, H. P. Stoughton died at Capac, Mich. He had been in the grain business at Capac for the last 40 years.

TALBOTT.—W. H. Talbott shot and killed himself at his home in La Grande, Ore. He was engaged in the grain business coming to La Grande from Cincinnati, Ohio, about eight years ago. His widow and one daughter survive him.

TAYLOR.—Frank Taylor died recently at Almena, Kan. He was formerly manager of the Farmers Elevator Company there.

VOORHEES.—Aged 83 years, Wm. K. Voorhees died at Brooklyn, N. Y. He was one of the oldest feed and grain dealers in Brooklyn and was a charter member of the N. Y. Produce Exchange.

WILLIAMS.—J. W. Williams died recently. He had been engaged in the grain business at Wayne, Okla.

Editor American Elevator and Grain Trade:—You can cancel my ad as it has sold both outfits. I consider the money well spent.—A. H. McDONALD.

Editor American Elevator and Grain Trade:—Please change my address from Grain Exchange, Sioux City, Iowa, to Algona, Iowa, as I am connected with W. M. Bell Company of Milwaukee, Wis., at this point.—GEO. O. STROM, Algona, Iowa.

FIRES-CASUALTIES

Bainville, Mont.—The Jennison Mills' elevator and mill located here were burned.

Bury, Que.—Scott & Lizotte, dealers in feed and flour, suffered a loss from fire recently.

Lenora, Kan.—Fire on October 31 destroyed the elevator of the Turner Grain Company.

Caney, Kan.—Fire destroyed with a loss of \$15,000 the A. D. Young Elevator and Mill.

Loma, N. D.—The elevator of the Loma Grain Company was destroyed by fire not long ago.

Albany, Ga.—Fire destroyed the feed mill owned and operated by the Albany Milling Company.

Harrisville, Pa.—With a loss of \$2,000, the feed mill of McKee & Sutherland was destroyed by fire.

Port Arthur, Ont.—The Port Arthur Elevator Company, Ltd., recently suffered a loss from fire.

Red Cloud, Neb.—George Haverkamp's elevator here was completely destroyed by fire not long ago.

Hutchinson, Minn.—Fire destroyed with a loss of \$20,000, the elevator of the Powers Elevator Company.

Charleston, Mo.—Fire consumed the elevator of the Mississippi County Elevator Company located at this place.

Morgan Mill, Texas.—Fire destroyed the grain warehouse and considerable grain belonging to O. D. Roquemore.

Post Falls, Idaho.—The feed store here owned by E. D. Justice was destroyed by fire. The loss was \$2,700; insurance \$1,100.

Sidney, Mont.—A small loss was incurred when fire broke out in the elevator owned by the Farmers Mercantile Elevator Company.

Burleson, Texas.—Fire almost completely destroyed the ice, fuel and feed store of S. A. Shannon. The loss was \$2,500; insurance \$1,500.

Stuttgart, Ark.—On October 15 fire of unknown origin destroyed the warehouse located here and owned by the Arkansas Grain Company.

Egan, S. D.—Fire destroyed the Scharnhorst Seed Company's big warehouse with a loss of \$30,000. The loss is partly covered by insurance.

Hayland, Neb.—Fire totally destroyed the elevator of the Denman Grain Company. About 17,000 bushels of wheat and corn were destroyed.

Buffalo, N. Y.—An explosion caused a slight damage in the feed mill of the H-O Company on November 22. The loss amounted to \$25,000.

Kremlin, Okla.—The Enid Milling Company's grain elevator was burned recently; no grain was stored in the plant, which was a total loss.

Bartlett, Texas.—The warehouse here operated by the Lawrence Bros., was destroyed with 4,000 bushels corn. The loss is covered by insurance.

Milwaukee, Wis.—The Froedtert Malt Company's elevator was burned with a loss of \$50,000. The building was practically filled with grain at the time.

Craig, Colo.—Fire destroyed the Farmers Mill & Grain Elevator. The loss amounted to \$150,000. About 20,000 bushels of wheat in the elevator were destroyed.

Scotts, Mich.—On November 4, fire destroyed with a loss of \$20,000, the elevator of the Cleaner Clearing House Association. The building contained considerable wheat and rye.

St. Paul, Minn.—Fire damaged the Elevator "D" of the Pioneer Grain Company recently. The blaze started from an overheated motor in the workhouse, where the fire was confined.

Arion, Iowa.—The elevator of the Nye-Schneider-Jenks Company was destroyed by fire of unknown origin. Two small buildings and a part of the lumber yard were also burned.

Memphis, Tenn.—Considerable damage was done to the building occupied by the Edgar Morgan Feed Company. The blaze was controlled after a hard fight. Origin of blaze is unknown.

Dresden, Ont.—Fire destroyed the plant of the Lawrence & Wakefield Company together with 10,000 bushels of wheat. The loss amounted to \$75,000; it is partly covered by insurance.

Sleepy Eye, Minn.—On November 20, fire destroyed the elevator of the Edward F. Berkner Grain Company. The elevator contained about 48,000 bushels of grain. The loss was \$65,000.

St. Louis, Mo.—Fire damaged to the extent of \$5,000, the plant of the Kaercher Seed Company. Only the upper floors of the building were damaged. The loss is covered by insurance.

Moneseen, Pa.—On November 9, fire damaged to the extent of more than \$20,000, the plant of the

Moneseen Flour & Feed Company. The plant of the Western Flour Company which adjoins the former was slightly damaged.

Ninnekah, Okla.—On November 18, fire destroyed the elevator belonging to the Ninnekah Grain & Lumber Company. About 12,000 bushels of grain were destroyed. The loss amounted to \$5,000.

New Richmond, Wis.—Fire of unknown origin destroyed the Gallagher Grain Company's elevator. The loss amounted to \$8,000. Insurance of \$3,000 was carried on the building and \$3,000 on contents.

Ramona, Okla.—The elevator of Wm. H. Staley of Checotah, Okla., at this place was destroyed by fire together with 1,500 bushels of grain. The fire occurred on November 20; the cause was unknown.

Somerville (Gouverneur p. o.), N. Y.—The warehouse of the Wm. Syckoff Company was damaged by fire on November 8. Slight damage was also done to the elevator. The cause of the fire was not known.

Kittson (mail Crookston), Minn.—On December 6 fire destroyed the Kittson Elevator owned by the St. Anthony & Dakota Elevator Company. There was not much grain in the elevator at the time of the fire.

Fort Totten, N. D.—The grain elevator of the Frank Palmer farm near here together with 4,000 bushels of grain was burned on December 5. The fire is believed to have been started by an overheated boxing.

Spokane, Wash.—The feed mill, elevator and warehouse of the Neil Bros. Grain Company were burned on November 12. The loss amounted to \$50,000, partly covered by insurance. The firm will probably rebuild.

Orangeburg, S. C.—The building here of the Fairey Seed & Grain Company was recently burned. It is believed that the fire was of incendiary origin. The loss was \$25,000; insurance amounted to \$10,000.

Neodesha, Kan.—Fire destroyed the elevator building here owned by the Land Milling Company. About 5,000 bushels of wheat were on hand at the time of the fire. Loss amounted to \$25,000; insurance covered the loss.

Tescott, Kan.—Fire destroyed the grain elevator here owned by the Kansas Flour Mills Company. The building and 5,000 bushels of wheat were completely destroyed. The loss amounted to \$2,500; fully covered by insurance.

Toledo, Ohio.—The warehouse of the Raymond P. Lipe Company, hay and grain dealers, was burned on November 10. The loss amounted to \$15,000. The fire was of undetermined origin. The Lipe plant was swept by fire in November, 1918, when \$100,000 worth of hay was destroyed.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for November:

BALTIMORE—Reported by J. B. Hessong, secretary of the Chamber of Commerce:

	Receipts		Exports	
	1921	1920	1921	1920
Wheat, bus..	1,340,586	2,375,615	1,053,629	2,523,151
Corn, bus....	687,135	925,889	877,216	710,146
Oats, bus....	18,623	129,966	.....	30,000
Barley, bus..	33,742	295,754	.....	154,846
Rye, bus....	790,341	564,510	360,000	355,114
Malt, bus....	.....	11,712	.....	.....
Buckwheat, bus.	1,232	986	.....	.....
Straw, tons..	101	152	.....	.....
Hay, tons....	996	1,413	.....	.....
Millfeed, tons.	1,353	1,674	.....	.....
Flour, bbls..	108,579	135,888	9,639	45,535

CINCINNATI—Reported by Geo. F. Munson, chief inspector of the Cincinnati Grain & Hay Exchange:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	156,000	216,000	192,000	166,800
Shelled Corn, bus.	402,000	339,600	181,200	135,600
Oats, bus....	242,000	308,000	122,000	228,000
Barley, bus..	5,200	.....	.....	.....
Rye, bus....	8,400	3,600	1,200	6,000
Ear Corn, bus.	14,400	15,200	.....	.....
Hay, tons....	6,160	8,536	.....	.....
Feed, tons...	450	1,710	.....	.....

CLEVELAND—Reported by F. H. Baer, traffic commissioner of the Chamber of Commerce:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	102,040	.....	.....	.....
Lake R. R.	63,835	65,306	36,758	7,382
Corn, bus..	105,000	.....	.....	.....
Lake R. R.	146,594	133,597	85,540	35,686
Oats, bus....	194,160	538,723	69,568	133,647
Barley, bus..	2,625	10,463	.....	763
Rye, bus....	3,261	11,023	.....	.....
Hay, tons....	2,775	1,906	50	25

CHICAGO—Reported by John R. Mauff, secretary of the Board of Trade:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	1,157,000	1,262,000	2,074,000	940,000
Corn, bus....	7,577,000	3,901,000	5,807,000	5,082,000
Oats, bus....	3,552,000	4,473,000	3,478,000	3,588,000
Barley, bus..	522,000	1,535,000	242,000	456,000
Rye, bus....	504,000	265,000	4,000	105,000
Timothy Seed, lbs.	3,198,000	4,009,000	2,340,000	1,503,000
Clover Seed, lbs.	2,040,000	747,000	691,000	391,000
Other Grass Seed, lbs..	2,719,000	1,477,000	770,000	846,000
Flax Seed, bus.	57,000	35,000	.....	10,000
Hay, tons....	13,274	12,823	445	1,380
Flour, bbls..	941,000	621,000	670,000	443,000

DULUTH—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	8,051,476	7,300,034	7,413,314	9,304,261
Bonded Wheat, bus.	202,516	175,632	173,422	263,780
Corn, bus....	372,696	.....	851,035	.....
Oats, bus....	229,399	209,154	464,214	34,982
Bonded Oats, bus.	.....	64	.....	69
Barley, bus..	184,132	772,153	.....	995,013
Bonded Barley, bus..	.....	1,227	.....	.....
Rye, bus....	850,840	2,216,143	1,087,874	2,102,874
Flax, bus....	800,604	589,105	760,538	960,150
Bonded Flax, bus.	66,879	71	.....	.....
Flour, bbls..	1,189,480	.....	1,423,035	.....

FORT WILLIAM, ONT.—Reported by E. A. Ursell, statistician of the Board of Grain Commissioners:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	40,848,143	21,612,036	49,028,837	19,962,716
Corn, bus....	286,818	.....	94,309	3,053
Oats, bus....	4,727,224	3,511,979	6,939,153	2,361,840
Barley, bus..	1,100,063	1,057,179	1,647,357	1,255,561
Rye, bus....	620,827	460,438	1,162,574	487,401
Flax Seed, bus.	669,948	606,074	697,650	557,144
Mixed Grain, lbs.	2,963,150	1,618,707	2,238,320	321,000

GALVESTON—Reported by H. A. Wickstrom, chief inspector of the Cotton Exchange and Board of Trade:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	1,934,200	4,861,293
Corn, bus....	23,026
Rye, bus....	34,285	.....
Maize and Kaffir Corn, bus.	28,401

INDIANAPOLIS—Reported by Wm. H. Howard, secretary of the Board of Trade:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	126,100	161,200	66,800	115,700
Corn, bus....	2,076,200	1,555,400	1,038,800	1,162,000
Oats, bus....	856,000	1,086,000	560,000	1,092,000
Barley, bus..	15,400	18,200	18,200	19,600
Flour, bbls., mfg.	31,017	28,442	.....	.....

LOS ANGELES—Reported by M. D. Thiebaud, secretary of the Los Angeles Grain Exchange:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, carloads.	148	112	.....	.....
Corn, carloads..	45	55	.....	.....
Oats, carloads..	36	60	.....	.....
Barley, carloads.	89	125	.....	.....
Rye, carloads..	2	2	.....	.....
Seed, carloads..	6	2	.....	.....
Bran, carloads..	35	31	.....	.....
Kaffir Corn, carloads.	1	2	.....	.....
Milo Maize, carloads.	78	146	.....	.....
Flour, carloads..	125	126	.....	.....

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	105,300	204,000	493,965	105,805
Corn, bus....	762,475	833,625	1,590,369	423,000
Oats, bus....	1,410,850	1,420,600	1,334,753	1,486,545
Barley, bus..	446,505	950,175	336,090	165,510
Rye, bus....	69,500	279,455	51,330	183,580
Timothy Seed, lbs.	918,241	60,000	283,413	163,043
Clover Seed, lbs.	328,507	124,024	1,179,808	401,281
Malt, bus....	70,300	49,735	485,400	313,839
Flax Seed, bus.	19,320	53,808	9,221	418
Feed, tons....	7,632	2,840	21,100	16,914
Hay, tons....	1,176	1,718	456	240
Flour, bbls..	168,560	51,480	83,320	127,958

MINNEAPOLIS—Reported by G. W. Maschke, statistician of the Chamber of Commerce:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	8,655,760	14,470,840	2,786,960	4,886,610
Corn, bus....	871,990	961,270	373,550	443,460
Oats, bus....	1,925,030	2,036,350	1,631,110	1,165,800
Barley, bus..	716,310	2,212,000	745,510	1,952,040
Rye, bus....	253,310	395,920	42,410	83,990
Flax Seed, bus.	381,790	807,580	224,550	59,290
Hay, tons....	1,693	2,161	72	57
Flour, bbls..	133,433	99,007	1,464,692	1,744,981

MONTREAL—Reported by George Hadrill, secretary of the Board of Trade:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	5,743,554	7,554,711	6,888,084	6,569,469
Corn, bus....	4,534,428	2,500	5,501,780	.....
Oats, bus....	1,580,440	1,267,604	1,374,434	695,518
Barley, bus..	647,779	430,244	1,303,787	1,312,867
Rye, bus....	47,102	50,817	761,654	197,313
Flax Seed, bus.	78,852	45,262	.....	30,124
Hay, bales...</				

NEW ORLEANS—Reported by G. S. Colby, chief grain inspector and weighmaster of the Board of Trade, Ltd.:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	1,189,291	4,684,529
Corn, bus...	894,080	107,801
Oats, bus...	72,485	21,465
Barley, bus..	80,458	211,439
Rye, bus....	42,857

OMAHA—Reported by F. P. Manchester, secretary of the Grain Exchange:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	740,600	1,993,200	1,110,200	1,981,200
Corn, bus...	974,400	590,800	789,600	359,800
Oats, bus...	384,000	606,000	472,000	826,000
Barley, bus..	51,200	270,000	62,400	235,800
Rye, bus....	86,800	213,400	277,200	132,000

PHILADELPHIA—Reported by Samuel S. Daniels, statistician of the Commercial Exchange:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	7,296,942	3,445,048	6,773,974	2,677,145
Corn, bus...	350,458	264,807	392,659	232,624
Oats, bus...	221,534	316,692	.....	.....
Barley, bus..	2,500	.....	.....	51,880
Rye, bus....	14,860	194,928	.....	43,008
Flour, bbls..	319,474	157,648	7,913	32,292

PORTLAND, MAINE—Reported by Geo. F. Feeney, traffic manager of the Chamber of Commerce (all export grain):

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	1,585,704	2,269,522	708,318	1,071,024
Oats, bus...	57,374	.....	.....	.....
Barley, bus..	.....	82,265	.....	41,667
Rye, bus....	313,420	.....	311,700	.....

ST. LOUIS—Reported by Eugene Smith, secretary of the Merchants Exchange:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	1,583,005	3,320,730	1,544,610	1,762,505
Corn, bus...	1,816,644	881,440	1,802,370	622,850
Oats, bus...	1,044,000	1,918,000	897,790	1,663,200
Barley, bus..	67,200	224,000	25,920	18,070
Rye, bus....	6,600	50,600	1,070	19,710
Kaffir Corn, bus.	56,200	20,300	25,980	2,750
Hay, tons...	7,084	13,793	2,165	4,695
Flour, bbls..	439,440	291,730	514,470	354,490

SAN FRANCISCO—Reported by Henry C. Bunker, chief inspector of the Chamber of Commerce:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, tons..	2,541	4,476	.....	.....
Corn, tons...	1,515	1,294	.....	.....
Oats, tons...	2,232	3,084	.....	.....
Barley, tons..	38,089	37,131	.....	.....
Bran, tons...	1,067	216	.....	.....
Hay, tons...	3,666	5,501	.....	.....
Beans, sacks..	67,565	91,306	.....	.....

TOLEDO—Reported by A. Gassaway, secretary of the Produce Exchange:

	Receipts		Shipments	
	1921	1920	1921	1920
Wheat, bus..	1,736,335	659,000	637,965	234,263
Corn, bus...	222,500	193,750	86,545	16,869
Oats, bus...	135,300	383,350	112,230	198,788
Barley, bus..	2,400	3,600	.....	2,951
Rye, bus....	75,600	74,400	62,955	34,870
Timothy Seed, bags	4,150	4,199	364	524
Clover Seed, bags	5,766	7,907	1,421	1,950
Alsike, bags..	1,050	368	80	120

at planting time are not as favorable as usual, the chances for securing the desired stands are good any way. Save seed corn early and dry and store it properly. It pays."

SEED SITUATION IN HOLLAND

The grass seed crop of Holland this year is the worst in half a century, according to advices received in this country from one of the leading Dutch seed raisers and exporters. The plants suffered severely from the heat and drouth of last summer, with a few exceptions like Orchard Grass. Both White and Red Clover are expected to be short as many fields were cut for fodder.

NEW SEED TRADEMARKS

The following new seed trademarks was published in the November 22 issue of the *Official Gazette* of the U. S. Patent Office: "Red Seal" Alfalfa seed.



Hairy Peruvian Alfalfa Seed Growers Association, Yuma, Ariz. Filed August 10, 1921. Serial No. 151,631.

WESTERN GROWER ADVISES HOLDING ALFALFA SEED

Maurice Keating, president of the Western Seed Growers' Marketing Company, at Salt Lake, Utah, is advising producers to hold their stocks of Alfalfa seed, if able to do so, until the spring planting season as "we feel there will be no particular advance on Alfalfa seed until the actual spring demand exerts itself, due to lack of carrying power on the part of eastern dealers between now and spring. We feel very certain that all Alfalfa will be wanted next year and will not be at all surprised to see higher the first of the year." Last year, Idaho produced 150 cars of Alfalfa seed, according to Mr. Keating, while this year the crop for the state is estimated at only 40 cars.

[Continued on Page 476]

FIELD SEEDS

A seed business is to be conducted at Texarkana, Texas, by George H. Smith.

The capital stock of the Spokane Seed Company of Spokane, Wash., has been increased to \$20,000.

The capital stock of the Western Seed & Irrigation Company of Fremont, Neb., has been increased to \$70,000.

J. G. Berger has started the Berger Seed Company at Princeton, Ind. He was formerly with the Ohio Valley Seed Company at Evansville, Ind.

A retail seed, feed, and flour store has been opened at Owosso, Mich., by the George W. Young Company. A complete line of various commodities will be handled.

The seed business of the Woodruff-Boyce Seed Company of Seattle, Wash., is to be conducted by A. Woodruff. A. J. Boyce will take over the nursery and greenhouses.

The Minnesota Seed Growers Association has been incorporated at Crookston, Minn., capitalized at \$5,000. The incorporators are W. E. Casselman, E. R. Clark and C. Franks.

The elevator of the Pedigree Seed Company of Oshkosh, Wis., has been leased by the H. P. Schmidt Milling Company. The company now has a combined capacity of 45,000 bushels.

The W. T. Ainsworth & Sons' seed corn plant at Mason City, Iowa, has been completed and machinery is being installed. This replaces the one which was recently destroyed by fire.

B. P. Levie is president, John Boggs, vice-president, and R. Denkins, secretary and treasurer, of the Birmingham Seed Company of Birmingham, Ala. Its capital stock is \$5,000.

New headquarters are now occupied by the Delta Seed & Feed Company at Yuma, Ariz. The company now has improved facilities for the handling of grass and field seeds and feeds.

Burt Calhoun has joined the new firm at Spartanburg, S. C., known as the Holmes-Calhoun Seed Company. He had been connected with the Leonard Seed Company for many years.

A general seed business is to be conducted at Newark, N. J., by the recently organized Bonnie Best Seed Company. Its capital stock is \$15,000. E. D. Obertrifler is president and manager.

H. Randall and his brother, Edward, have gone into the seed business at Seattle, Wash. They have opened a store and seed nursery business under the name of "Randall's." H. Randall was formerly with the Randall-McLoughlin Seed Company, which has gone out of business.

CORN ARTIFICIALLY DRIED BEST FOR SEED

Seed corn gathered during seed corn time in September will be good seed for a year from next spring provided it has been thoroughly dried and is stored in a cool dry place, according to farm crops men at University Farm, St. Paul, Minn. Seed corn dried with artificial heat gives the best germination tests in the spring. Hung in a furnace room it has given an average germination percentage of 97. Where carelessly stored, or where no heat is applied, the germination power has been found to be much lower.

BEST SEED CORN ESSENTIAL

Commenting on the value of planting good seed corn, A. C. Arny, in charge of farm crops, University of Minnesota, Department of Agriculture says:

"One of the most important considerations in growing a profitable corn crop is to secure a good stand. In Minnesota an average stand of four to five plants per hill fairly evenly distributed usually gives the highest yields of grain, and an average stand of four to five plants is desirable for silage production. It takes good seed corn to secure this average stand even when the soil is in good condition at planting time. When the soil is somewhat cold and wet at planting time, seed, which would give good stands under favorable conditions, is not equal to the occasion. The results are poor stands and comparatively low yields. The only safe way is to have seed corn of the highest germinating power and vigor every year. Then, if conditions

TRANSPORTATION

NO TAX AFTER JANUARY 1

Effective January 1, 1922, under the new Revenue Bill signed by President Harding, the transportation taxes provided for in the Revenue Act of 1918 will no longer be collected. The effect of the new law is to repeal, as of January 1, 1922, the 3 per cent tax on freight, the 1 per cent tax on each 20 cents paid on express shipments, the 8 per cent tax on transportation of persons, the 8 per cent tax on Pullman tickets, and the 8 per cent tax on transportation by pipe line.

No change was made with respect to the tax on telegraph and telephone messages, which is 5 cents on more than 14 cents and not more than 50 cents, and 10 cents on more than 50 cents.

In the fiscal year 1921 the revenue collected under the transportation taxes amounted to \$273,000,000.

USE OF FREIGHT CARS

Revenue freight loading totaled 673,827 cars in the week ended November 26, as compared with 786,671 in the preceding week, according to the weekly report of the car service division of the American Railway Association. The drop in loading is attributed to the fact that Thanksgiving was observed as a holiday and also to expected seasonal decreases. In the corresponding weeks of 1920 and 1919 the loadings totaled 803,701 and 739,197 cars, respectively.

Decreases were shown in the loading of every commodity in the week ended November 26, as compared with the preceding week, but this was to be expected on account of the holiday. Loading of grain and grain products dropped from 37,455 cars in the week ended November 19 to 35,081 cars in the week ended November 26; livestock from 34,538 to 25,866 cars; coal from 166,786 to 137,432 cars; coke from 6,487 to 6,307; forest products from 50,

300 to 43,643 cars; ore from 7,924 to 5,541 cars; merchandise, l. c. l. from 228,886 to 200,000 cars; and miscellaneous from 254,315 to 219,757 cars.

RAIL AND WATER RATES FOR BARGE LINES

The Secretary of War, as operator of the Mississippi-Warrior Service, has filed a complaint against the railroads (Docket No. 13290) on the ground that all-rail rates in the territory served by the barge lines is lower than the combination rates now in effect. The Commission is asked to prescribe rates and divisions thereof.

The complaint is an elaborate document in which is shown the barge facilities and terminals, maps and other pertinent data. A marine leg is being installed at the New Orleans Public Elevator and barge loading facilities for bulk grain are already in service at St. Louis, Cairo and other points. The complaint shows that from November 1, 1919, to August 31, 1921, the barge lines carried 134,346 tons of wheat; 23,159 tons of corn; and 8,544 tons of flour and meal.

CHANGE IN INDIANA RATES

A finding of undue prejudice and an order to remove it not later than February 21 have been made in No. 11704, Indianapolis Board of Trade vs. Baltimore & Ohio et al., opinion No. 7237, 64 I. C. C. 416-21, as to charges on transit grain at Indianapolis in comparison with charges for like service at Noblesville, Ind., says the *Traffic World*. The Commission found that Noblesville millers, elevator operators and commission firms handling grain are being unduly preferred to the prejudice and disadvantage of their rivals at Indianapolis.

The Commission held that the charges for back-haul service to and from Indianapolis, running from 1 to 3.5 cents per 100 pounds, constituted an undue prejudice because there is no such charge

at Noblesville. The complaint assailed rates, rules, routes and regulations applicable to the movement of grain originating at various points on the Lake Erie & Western Railroad, accorded transit or other services at Indianapolis, and subsequently forwarded as such, or as manufactured products, to (1) western termini of trunk lines, trunk line territory, and points taking the same rates or arbitraries over such rates, all hereinafter called eastern territory, and (2) Virginia cities and points taking the same rates on arbitraries over such rates hereinafter called Virginia cities.

Commissioner Meyer, who wrote the opinion, summed up the situation by saying:

The undue prejudice alleged is based essentially on the situation at Noblesville, Ind., intermediate between Indianapolis and Tipton, and 17.5 miles south of that junction. The Indianapolis mills meet their strongest competition at Noblesville, those at both points buying their grain in the same territory and seeking the same markets for the sale of their products, and as contrasted with the situation described at Indianapolis the record shows (1) that on traffic to eastern territory, Noblesville, both prior and subsequent to February, 1920, has been accorded milling in transit, and since that date an arrangement for mixing and storage in transit has been provided, which services have applied and now apply in connection with the through rate, without the addition of an out-of-line or back-haul charge; and (2) that on traffic to Virginia cities, originating on defendant's main line west of Tipton and on the lines of its connections west of Peoria, the through rates apply via Noblesville and defendant's line out of that point through Sandusky and transit as provided in Kelly's transit grain circular above referred to, is available.

The testimony shows that shortly prior to Federal control, defendant agreed to accord certain of the relief here asked and that subject to our approval, it is now willing to eliminate the out-of-line or back-haul charge on traffic to eastern territory and to eliminate the "plussed rate" basis and accord transit connection with traffic from Indiana stations to Virginia cities.

TO FIGHT RATE CASE REHEARING

Clyde M. Reed, chairman of the Public Utilities Commission of Kansas, who started the Western Rate Case, has protested against the rehearing of the case on December 14. The protest recites:

That the petitioners' application for a rehearing is in substance an offer to compromise the decision in I. C. C. Docket No. 12929 and the subsequent order, and a request that the Commission stultify itself by receding from its original position and ordering a reduction of 10 per cent on all farm commodities after a specific finding by that tribunal of unreasonableness and the extent thereof.

That the petitioners fail to show any change in conditions or any additional facts which were not before the Commission at the time of the original hearing.

That the petitioners in their application for rehearing proceed on the theory that the reductions were made solely in view of the economic condition of the agricultural industry, ignoring the most potent factor of the decision, and that is the finding of the Commission that the transportation rates would be for the future unjust and unreasonable to a certain specific extent.

That the petitioners' position in this case is tantamount to an admission that the rates on all farm products are unreasonable, and in view of this the question alone to be determined is the extent of the unreasonableness. As far as grain, grain products and hay are concerned the extent of unreasonableness has been determined by the Interstate Commerce Commission in I. C. C. Docket No. 12929.

That the petitioners' application for a rehearing fails to state sufficient grounds to warrant the reopening of this case.

Therefore the Public Utilities Commission of the State of Kansas prays that the application of the carriers for rehearing in I. C. C. Docket No. 12929 be denied.

But the Commission has granted the rehearing and in all probability will grant the substitution requested by the carriers.

CAR SUPPLY SUMMARY

General car supply conditions at the end of November were set forth as follows by M. J. Gormley, chairman of the car service division of the American Railway Association:

Box Cars: Coincident with decreased loading customarily experienced at this season, together with the passing of artificial demand created by the threatened labor difficulty, surplus plain box cars in good order on November 1 totaled 51,527, or nearly one and a half times the number reported two weeks previously. Empty cars enroute home should be used for loading to fullest possible extent to reduce empty mileage to the minimum. Give special attention to observance of car service rules in furnishing cars for loading.

Automobile Cars: Cars of this type should be worked home or into automobile-producing territory as requirements may necessitate.

Ventilated Box Cars: In demand. Return promptly to owners. Do not load with dead freight except in direction of home.

Stock Cars: Supply ample. Return cars to owners promptly.

Refrigerator Cars: In the Northwest there will be a somewhat decreased demand for refrigerators after the Thanksgiving holiday until the first of the year. It is expected the citrus fruit loading in Florida and from California will continue at the usual seasonal rate. Loading for November is generally running in excess of last year but not as heavy as during the month of October. Due to the splendid support of the shippers and receivers of perishable freight, as well as co-operation by the railroads, the situation this season to date has been handled well, and at present all requirements are being fully met. Distribution of cars will continue to be as directed by the refrigerator section.

Open Top Cars: Bituminous coal production per week hovers around the nine million ton mark. All roads report a full car supply for the loading of coal and other commodities requiring open top cars. An increase of approximately 21,000 open top cars reported surplus as of week ended November 15.

Flat Cars: There has been a falling off in the demand for flat cars. Figures for period ended November 15 show a surplus of 9,330 cars.

HAY, STRAW AND FEED

ADOPTS NATIONAL ASSOCIATION'S GRADES

We are advised by Secretary J. Vining Taylor of the National Hay Association that the Association's hay grade rules adopted at the annual convention in August, have been adopted in full by the exchanges at Cleveland, Ohio, and Denver, Colo. They are already in effect on these two markets.

HAY RECONSIGNMENT CHARGE ABOLISHED

The hay trade generally will be interested in the findings of the Minnesota Railroad and Warehouse Commission, relative to discontinuing the old rule by which a reconsignment charge of \$2.50 per car was made on hay and straw shipments at Minneapolis, St. Paul, Duluth and South St. Paul. In an order issued under date of November 7 and effective November 27, the carriers were ordered to discontinue this practice, thus placing shipments of hay and straw on a par with those of grain and seeds.

FEED ARBITRATION COMMITTEE APPOINTED

President B. E. Clement of the Grain Dealers National Association has appointed a new Arbitration Committee to settle feed disputes within the Association during the coming year. The members of this Committee are: J. O. Caldwell of the Ralston Purina Company, St. Louis, Mo., chairman; H. R. Wilbur of the Ames-Burns Company, Jamestown, N. Y.; and Jay Canfield of the Fraser-Smith Company, Minneapolis, Minn. The new committee should not be confused with the six regular Arbitration Committees of the Association, as it will be called upon to handle feed disputes only.

NEW COMMITTEES APPOINTED FOR THE CALIFORNIA BEAN DEALERS

The following committees have been appointed by the president of the California Bean Dealers Association:

Standardization Committee: T. E. Bunker, chairman; Silas D. Sinton, H. Clay Miller, George E. Croke and A. Lehmann; **Contract and Rules Committee:** H. Clay Miller, chairman; E. E. Myers, R. A. Bray, E. A. Bunker and A. B. Shoemaker; **Traffic Committee:** Silas D. Sinton, chairman; Arthur C. Oppenheimer and Benjamin Granas; **Membership Committee:** A. Lehmann, chairman; Henry G. Turner and Lawrence Waterman; **Finance Committee:** R. A. Bray, chairman; G. E. Kirkpatrick and Arthur C. Oppenheimer; **Legislative Committee:** Scott F. Ennis, chairman, Adolf Koshland and Howard G. Thompson.

WHY STRAIGHT CORN IS INFERIOR TO MIXED FEED

As every one who handles mixed feeds well knows, there is more straight corn being fed to hogs this year, on account of price, than for many years past. Feed dealers need to use all their arguments and persuasion on hog feeders to show them that true economy in hog feeding does not necessarily consist in stuffing a porker full of straight corn just because it is cheap.

The Kentucky Feed & Grain Company, in a recent selling talk, showed conclusively that corn as a feedstuff will not give results comparable to those obtained from a scientifically balanced ration. For every bushel of corn feed to a hog, only 12 pounds remains in the animal for transformation into flesh and bone. The other 44 pounds are therefore, of value to the feeder merely at manure prices, argues the Kentucky Feed & Grain Company. A correctly manufactured feed is palatable and so balanced that the digestion of its various component parts will progress no faster than the hog can use the nutrients. It is better to sell corn, even at low prices, and buy the more economical manufactured feeds with their minimum of waste.

A RECOMMENDED OAT FEED

There is a hay shortage in Wisconsin this year estimated at 500,000 tons, which means that many dairymen must seek substitute feeds. W. W. Clark, county agent for Portage County, replying to numerous inquiries in this connection said recently:

"When grain and mill feeds are cheaper per ton than the best hay, it will pay to feed cheap roughage like cornstalks or straw and use more grain. A number of dealers are now handling an oat feed composed of ground oat hulls, oat dust and a little middlings from oat meal mills. The best quality of this contains 6 per cent crude protein and is

about equal in feeding value to a poor quality of hay or good straw. If used in place of hay with the usual grain ration, it is a very good buy at present prices."

County Agent Clark is also advising farmers to use feeding molasses as part of the ration this winter and has arranged with local dealers to handle it in car lots in various places. The material being handled is cane molasses, put up in 50-gallon barrels. For use it is mixed with two or three times its volume of water and sprinkled over cornstalks, straw or other dry feed. About one quart a day is fed to each milk cow.

HAY SITUATION AT ST. LOUIS

Says the Graham & Martin Grain Company of St. Louis, in their market letter of December 10: "Receipts of hay during the past week have been moderate in amount, consisting of Timothy, Prairie, Alfalfa and Clover. The quality of the offerings have been fair. The Timothy hay market during the past few days has ruled steady, receipts have been only fair, and demand is readily absorbing the arrivals at full prices. The demand at the moment is particularly good for Bright No. 1 Timothy hay, with a fair inquiry for good Standard and No. 2. Low grades are rather quiet.

"The Alfalfa market continues unchanged; there is an excellent local demand for good dairy Alfalfa. Hay suitable for dairy feed is selling at top figures. Coarse, rough hay, although of a good color is not selling very well, although there is a fair demand. The Alfalfa millers here are not buying hay as they can buy the Alfalfa meal to better advantage at Colorado points."

FALLING OFF IN "CUT HAY"

The demand for cut, or chopped, hay has diminished to such an extent during the past decade that at present only an occasional car is bought by city dealers while only a few shippers prepare this commodity for market.

But back in the days when phaetons, surreys, and smart traps drawn by high-stepping trotters and easy-going "family" horses were seen upon the boulevards, and the heavy hauling was done by big draft horses rather than by gasoline-eating trucks, many city dealers operated plants for the preparation and baling of cut hay. Numerous plants also were situated in the producing sections of New York, Pennsylvania and Ohio. The advent of the automobile, however, has changed all this, aided materially by the substitution of electricity for mule power as the propelling force of street cars.

The kinds of hay usually chopped were Timothy and Clover Mixed. While hay which had become slightly overripe or which contained a mixture of grasses frequently was used, only good, sound, and sweet feeding hay was considered to be fit for shipping.

Cut hay is generally fed mixed with grain and is considered an excellent feed, as it prevents the stock from eating the concentrated grain ration too rapidly. The hay is usually dampened when used in this manner. This is one of the disadvantages of feeding it for if more than enough is mixed for one feed and it is not fed within a short time it is likely to sour if the weather is warm, or possibly freeze if the weather is cold. This condition, together with the labor and bother of mixing, has caused feeders in many instances to turn to ready-mixed and molasses feeds. However, for feeders who desire to prepare their own mixed feed ration, the cut hay is probably the most convenient ingredient that can be used to produce the required milk.

KANSAS CITY HAY MARKET

BY B. S. BROWN

Moderate strength has prevailed in the hay market the past few weeks, chiefly as a result of diminishing receipts. There has been no conspicuous expansion in demand, but the reduced offerings have not included much choice hay and buyers have had to compete at times for certain grades. The biggest advance has occurred in Alfalfa, gains ranging from 50 cents to \$3.50 a ton. The better grades showed the full advance, and the poorer class of offerings, which were not especially wanted, made advances of only 50 cents to \$1. Prairie hay generally was up 50 cents to \$1, with a few quotations as much as \$2 higher. With practically no trade Lowland and Midland Prairie were unchanged. Timothy ruled about steady, with some quotations showing firmness, though there was no change in the range of prices.

Receipts at Kansas City in November, as officially reported, were 1,131 cars, a decrease of 608 cars less than in the preceding month and 1,935

cars less than a year ago. In the same month two years ago arrivals were 4,439 cars. The 10-year November average is 3,066 cars.

The delay in putting into effect reduced freight rates on grain and hay has been a disappointment to shippers and buyers alike. There was a noticeable holding back on the part of the trade in expectation of more favorable transportation conditions and the market is recovering slowly. Dealers are uncertain when the larger movement from the surplus producing territory to the consuming territory in the East, Southeast and North will get under way.

Recent advances in bran and other mill feeds have been responsible for some improvement in the demand for Alfalfa. Dairymen who formerly bought sparingly of Alfalfa and other grades of hay because of the relatively high prices of hay and the cheapness of bran are now showing a decided preference for hay. Bran is selling close to \$20 a ton, after declining to \$10 early in the season.

NEW GOVERNMENT BULLETIN ON MARKETING HAY

Within the last two months the Bureau of Markets and Crop Estimates of the Department of Agriculture has issued four bulletins covering various phases of hay marketing. They are: Bulletin No. 977, entitled "Marketing Hay at Country Points," Bulletin 978, entitled "The Weighing of Market Hay," Bulletin 979, entitled "Marketing Hay Through Terminal Markets," and Bulletin 980, entitled "Inspection and Grading of Hay." All of these bulletins are the work of H. B. McClure, Specialist in Marketing Hay, in collaboration with G. A. Collier, Investigator in Marketing Hay.

Each of them contains a lot of valuable information and a number of excellent suggestions for anyone engaged in the handling of hay, and a study of them would be well worth while. They can be obtained by applying to the Department of Agriculture at Washington. A brief resume of Bulletin No. 979 is published elsewhere in this department.

NEW FEED BRANDS

"PEERLESS" horse feed. Omaha Alfalfa Milling Company, Omaha, Neb. Filed May 20, 1921. Serial No. 147,981. Published and registered November 1, 1921.

"BEAUTY" cattle and stock feed. Samuel Preston Davis, Little Rock, Ark. Filed July 2, 1921. Serial No. 149,952. Published November 8, 1921.

Alfalfa meal. The Denver Alfalfa Milling & Products Company, Lamar, Colo. Filed June 29, 1921. Serial No. 149,799. Published November 8, 1921.

"BUTTERCAKE DAIRY FEED" dairy feed. R. M. Stegall, Chattanooga, Tenn. Filed May 9, 1921. Serial No. 147,474. Published November 8, 1921.

"SP. DAVIS SERVICE PRODUCT" cattle and stock feed. Samuel Preston Davis, Little Rock, Ark. Filed July 2, 1921. Serial No. 149,949. Published November 8, 1921.



"STEERBOY" cattle and stock feed. Samuel Preston Davis, Little Rock, Ark. Filed July 2, 1921. Serial No. 149,950. Published November 8, 1921.

"CACKLEMORE SCRATCH FEED" chicken feed. Speltz Grain & Coal Company, Albert Lea, Minn. Filed July 5, 1921. Serial No. 150,042. Published November 8, 1921.

"PURITY" chicken feed. W. M. Cosby Flour & Grain Company, Birmingham, Ala. Filed April 2, 1921. Serial No. 145,616. Published and registered November 8, 1921.

"VERIBEST" cattle and stock feed. Samuel Preston Davis, Little Rock, Ark. Filed July 2, 1921. Serial No. 149,951. Published and registered November 22, 1921.

"ELM CITY" wheat flour, dairy rations, stock feed, laying mash and scratch feed. Merrill & Mayo Company, Waterville, Maine. Filed November 3, 1920. Serial No. 139,124. Published and registered December 6, 1921.

Feed Labels Registered

23,318.—Title: "Sterling Dairy Feed." (For bags of dairy feed.) Northrup, King & Co., Minneapolis, Minn. Filed April 25, 1921. Registered August 30, 1921.

23,319.—Title: "Sterling Scratch Feed." (For

bags of poultry feed.) Northrup, King & Co., Minneapolis, Minn. Filed April 25, 1921. Registered August 30, 1921.

23,320.—Title: "Sterling Egg Mash." (For bags of poultry feed.) Northrup, King & Co., Minneapolis, Minn. Filed April 25, 1921. Registered August 30, 1921.

23,393.—Title: "No Kil Scratch Feed." (For bags of poultry feed.) Northrup, King & Co., Minneapolis, Minn. Filed May 27, 1921. Registered September 6, 1921.

23,431.—Title: "Baby Buster." (For chick feed.) The Park & Pollard Company, Boston, Mass. Filed March 21, 1921. Registered September 13, 1921.

Trademarks Registered

146,328. Certain named feed for horses, mules, hogs, and hens. Pease & Dwyer Company, Memphis, Tenn. Filed January 20, 1921. Serial No. 142,522. Published May 24, 1921. Registered September 6, 1921.

146,329. Grain feed composed of corn, oats, alfalfa meal and molasses. Pease & Dwyer Company, Memphis, Tenn. Filed January 20, 1921. Serial No. 142,529. Published May 31, 1921. Registered September 6, 1921.

147,761. Dairy, stock, and poultry mixed feeds. Champion Milling & Grain Company, Clinton, Iowa. Filed January 17, 1921. Serial No. 142,328. Published June 28, 1921. Registered November 1, 1921.

147,950. Prepared stock foods.—Capitol Products Company, Des Moines, Iowa. Filed October 18, 1920. Serial No. 138,428. Published July 12, 1921. Registered November 8, 1921.

148,226. Grain and horse feed. Ernest Redd, Birmingham, Ala. Filed January 28, 1921. Serial No. 142,907. Published June 28, 1921. Registered November 8, 1921.

149,172. Cottonseed meal. C. L. Montgomery, Memphis, Tenn. Filed March 21, 1921. Serial No. 145,027. Published July 19, 1921. Registered December 6, 1921.

NEW YORK HAY DECLINED—LATER ADVANCED

BY C. K. TRAFTON

For a short time immediately subsequent to my last the hay market continued flat and depressed. For the time being receipts were somewhat excessive and especially all common or poor grades and notably in small bales. It was alleged that many country shippers in Western States had continued to turn out large quantities in small bales as they found expedient during the War. It was claimed that small bales were found convenient to handle or transport for feeding horses, etc., employed in the War, but, in times of peace small bales and particularly the "perpetual bales" are not popular and consequently it was frequently found necessary to offer them at a decided discount in order to effect sales.

Because of the facts described it was claimed that many country shippers or farmers became decidedly dissatisfied and particularly in the instance of inferior descriptions which were almost unsalable, excepting at appreciably lower figures. In numerous cases it was alleged that in sales of this character hardly enough was realized to pay freight and other charges.

Suddenly there was a radical change in the temper of the market, depression being succeeded by buoyancy. This was attributed partly to a material falling off in receipts which created little surprise as it was well known that farmers and country shippers had been greatly disappointed and in some instances provoked because of the low prices that they had received in mid-November, hence they had become determined to make fewer or no shipments until there had been a sharp advance in quotations. It also came to light that on the decline previously mentioned exporters had taken advantage of the opportunity to buy on a larger scale. Moreover it was asserted that a few jobbers and large dealers had also been wise enough to accumulate abundant supplies.

Later in the month there was more general animation practically all distributors and consumers manifesting much more interest making it plainly evident that the stocks they had accumulated during the sharp decline mentioned had been reduced to a lower plane. In the meantime receipts had continued insignificant, especially of good to choice grades, as the arrivals via railroads became particularly limited and consequently offerings at the various terminals were generally inadequate, and as a result prices speedily advanced. Meanwhile, receipts were moderately larger by river and canal boats and consequently supplies of ordinary and inferior grades were ample and therefore the price difference between top and bottom descriptions became wider.

In some quarters it was claimed that larger quantities of hay were being consumed partly because more horses were actively employed resulting in part from some enlargement in general trade; furthermore, it was alleged that several large concerns have been employing more horses and notably for short hauls as the cost for horses

was less than auto hauling. Roughly, there has been such an enormous decline in the cost of hay and other horse feeds that it was inexpensive to keep them, while on the other hand there was an advance in gasoline, etc.

Toward the end of the month the market became less active as numerous buyers were inclined to hold off and use up their stocks as they considered that prices had gone high enough if not too high. They contended that after such a rise that had occurred in the month, farmers and country shippers would become better satisfied and therefore would begin to sell more freely and hence it was assumed that the receipts would soon show enlargement and especially via rail. As a matter of fact receipts via canal and river boats have dwindled appreciably and amounts to little or nothing. This is not surprising as navigation via water ways was practically ended for the season.

It was plainly evident that business was appreciably hampered by the fact that farmers and country shippers as well as jobbers and consumers were inclined to hold off awaiting the long promised reduction in rail freights. Doubtless it will be remembered that this tendency to wait was noticeable over a month ago. In other words, this lowering of freight rates was anticipated for several weeks and the numerous postponements have been the source of much surprise and disappointment. This means, of course, that virtually everyone concerned has naturally remained passive as they believed, of course, that the lowering of freight rates would be to their advantage. In some degree this was unfortunate for the buying or consuming element because they were compelled during this interval to draw down their reserves to a low plane. Consequently in some instances they found it necessary to replenish in a moderate way. Receipts of Alfalfa have been smaller, and with demand fairly active for good to choice grades a small advance was established.

MARKETING HAY THROUGH TERMINAL MARKETS

Hay is marketed too often under conditions and practices that tend to make the producer somewhat suspicious of the buyer and the buyer suspicious of the producer. Such practices should be eliminated altogether, in the opinion of the Bureau of Markets and Crop Estimates, United States Department of Agriculture, and in a new bulletin No. 979, "Marketing Hay Through Terminal Markets," Federal officials make suggestions as to how that may be brought about. Copies of the bulletin may be obtained upon application to the Department at Washington.

"While a good many unfair methods," says the bulletin, "are at present practiced by those concerned in the marketing of hay it appears that most of them are related to loose methods of business on the part of various agencies engaged in the handling of hay. On the basis of careful observations made throughout the hay producing and consuming sections, and at the principal markets, it is thought that some improvement in the methods of marketing hay can be obtained by observing the following suggestions:

"On the part of the country shipper: More care in grading, weighing and loading the hay; better forms for use in confirming sales, tabulating and stating weights, and for invoicing hay; and more care and accuracy in stating terms of sale.

"On the part of dealers in terminal markets: The elimination of the practice of allowing the state of the market to influence the fulfillment of contracts with country shippers; more uniform methods of handling in terminal markets; better weighing methods and more consideration of contents of weight certificates; more uniform grading practices; grading inbound and outbound hay on the same basis when hay is bought and sold on grade designations; and the elimination of the practice of boosting grades on outshipments.

"On the part of dealers in consuming sections: More careful weighing of purchases; elimination of rejections when price decline is the only factor; and better records relative to contents and weight of a car when unloading."

The bulletin goes into the details of methods followed in shipping and disposing of hay at various cities; cites common trade practices and faults; illustrates methods of car loading and of selling, and contains much valuable information relative to the industry.

The interest of Jos. McReynolds in the feed mill at La Plata, Mo., has been purchased by W. H. Craig.

The feed business at Perry, Iowa, formerly conducted by A. D. Allgood has been sold to H. M. Bugee.

Clifford A. Kneeland, Florence W. Kneeland and O. A. Pepin have organized and will operate a feed store at Custer, S. D. The company is capitalized at \$5,000.

The feed business of James A. Robinson at Shinnston, W. Va., has been purchased by E. J. Free and others. They will conduct the new business under the name of the Shinnston Feed Company.

It will enlarge the business and feature prepared feeds and handle a complete line of other feeds as well as flour, hay, etc.

A feed business is to be opened at Merrill, Wis., by Erwin A. Pophal. He operates under the name of the Merrill Flour & Feed Company.

The capital stock of the Woodridge Farmers Co-operative Feed Company of Woodridge, N. Y., has been increased from \$10,000 to \$50,000.

Russell Urbt and F. Ivan Law have purchased the feed business of Bert Herriott at Jamestown, Pa., and will conduct it under the name of Webb & Law.

The W. J. Durham Lumber Company which purchased the plant and property of the Community Mill Company at Neenah, Wis., is to handle feed in the future.

A mill for manufacturing a general line of mixed feeds has been put into operation by the American Linseed Company of Minneapolis. J. J. Schreiber is manager.

The flour and feed business of the Leaver Company at Boyertown, Pa., has been purchased by H. F. Tyson of Boyertown, and Herbert L. Schmoyer of Allentown, Pa.

The East End Feed Yard at Creston, Iowa, has been purchased by P. H. Hannan. He will handle mill feed, flour and other goods for the Farmers Co-operative Company.

The feed store of Harvey H. Hughes and his sons, Grover and Orville, at Waynesburg, Pa., has been sold to J. M. Strosnider, who was formerly in the dairy business.

H. M. Holden, R. A. Farrens, H. R. Smith, H. V. Smoushc and others have incorporated the Beaverton Feed & Produce Company of Ione, Ore. Its capital stock is \$10,000.

R. D. Ward is now associated with the sales department of the Clover Leaf Milling Company of Buffalo, N. Y. He was formerly with the American Grain & Feed Corporation.

At Edmonds, Wash., the Fleming & Wallace Feed Company has been incorporated. John J. Fleming, O. Wallace and Edith Fleming are interested. The firm is capitalized at \$5,000.

The South Side Feed Store of Dodge City, Kan., has been purchased from B. F. Hensley by W. H. Gould and his son, P. A. Gould. He formerly operated an elevator at Wilroads.

F. H. Zelt, D. W. McMillan, E. K. Shelley, H. D. Egley have filed articles of incorporation at Fort Wayne, Ind., as the Wayne Feed Company. The company is capitalized at \$20,000.

R. T. Brown, Jr., is president and treasurer, E. Brown, vice-president and Louise M. Daffins, secretary of the Enterprise Feed Company of Birmingham, Ala. Its capital stock is \$2,000.

A store is to be opened at Van Buren, Ark., for the Oglesby Feed Stores Company which has a chain of feed stores throughout the state of Arkansas. James Davis will have charge.

The Jackson County Co-operative Elevator Company of Seymour, Ind., has bought a feed mill at Browntown. The company was organized a year ago and operates a hominy mill at Seymour.

The Peter Jacobs Feed Company of Kenosha, Wis., will deal in cottonseed cake and other commercial mixed feeds, flour, corn, goods, etc. The capacity of the plant is being increased more than 100 per cent.

The Enterprise Bread & Feed Company has been incorporated at Birmingham, Ala., capitalized at \$2,000. The officers are: R. T. Brown, Jr., president and treasurer; E. Brown, vice-president and Louis M. Daffins, secretary.

A flour and feed business has been opened at Sterling, Ill., under the name of the Sterling Flour & Feed Company. L. C. Stormes of Clinton, who has been associated with the Hawkeye Feed Company for seven years, is proprietor.

The Oregon Grain Company of Turner, Ore., has taken over the Dallas Feed Company of Dallas, Ore., operated by Colwell & Welch. This is the fifth store which the Oregon firm owns; the others are located at Shaw, Turner, Aumsville, and Silverton.

Hugh B. Clark is president; F. A. Haines, vice-president and Edw. B. Hodge, secretary and treasurer of the Puyallup Feed & Supply Company of Puyallup, Wash. The property was formerly owned by the Puyallup & Sumner Fruit Growers Canning Company.

The mill and feed business of George L. Doggett at Waurika, Okla., have been purchased by George W. Young. He will continue to do custom grinding and handle feeds, and will conduct a general produce business under the name of the Waurika Feed & Produce Company.

The business at Francis Creek, Wis., known as the Frank Hessel Company has been turned over by Frank Hessel to his son-in-law, Joseph Muench. The name of the corporation has been changed to that of Joseph Muench & Co. The company deals in flour, feed, coal, wood, etc.

Visions of the New Day

Every Christmas time is a little different from any that has gone before. There is much this year to make us happy and much that we regret. America is not prospering and the blame is all her own. Many pocket-books are empty and many pantries bare. There is cheer, of course, in the carols which the angels sang that night on the starlit hills of Bethlehem. There is joy in the thought that leaders have caught a vision of the dawn upon the hilltops. The new day gives hope of greater unity of nations and brotherhood of man. But there is need of a larger Christmas spirit that will fill the world with sympathy and love. Taking a basket to a needy neighbor—or to someone less fortunate than we—is good, but not enough. This kindly act will make our Yule logs burn a little brighter. But the sentiment of Christmas must become a part of daily living and then in truth each man upon life's common road will be a comrade and a brother.

Lowell Hoit & Co.

COAL

PENNSYLVANIA COAL OUTPUT LARGER

A gain of 20,000,000 tons in the bituminous coal produced in Pennsylvania during 1920 is reported in preliminary figures announced by the state secretary of internal affairs. The total produced was 157,700,400 tons, valued at \$556,644,400. The value of the 1920 production was \$229,169,000 more than that of 1919. In 26 of the 67 counties of the state bituminous coal was mined last year, with the largest production that of Fayette County and the smallest that at Venango County. A total of 1,358 mines were reported to the department, and 159,423 persons were employed in them in 1920, as compared with 153,207 in 1919.

A NEW BOOK ON COAL

The "Coal Manual," by Frank R. Wadleigh, head of the fuel department of the Bureau of Foreign and Domestic Commerce at Washington, has just been published. It covers in an authoritative way every angle of coal quality, merchandising and use.

For salesmen, buyers and users of coal, the book is one of the best yet published on the subject. It treats on coal, civilization, various uses, definition, classification, coal fields of the world, production, analysis of purchases, specifications, what they should cover, b. t. u., method of purchase and penalty, preparation, cleaning, washing, transportation rates, samples and sampling, analysis proximate and ultimate, ash analysis and fusing temperature, clinkers, sulphur occurrence, appearance and effects.

The book has 200 pages, size 4½ by 6 inches. It is published by the National Coal Mining News, Charleston, W. Va.

COAL PRODUCTION REPORT

"Production of soft coal in the week ended November 26 dropped to 7,083,000 net tons," the *Geological Survey* said in a recent coal report. "The decrease of 1,811,000 tons below the output of the week preceding was due chiefly to the occurrence of Thanksgiving Day, but also to slackening demand for coal."

Preliminary telegraphic returns for the week November 28-December 3, indicated a further decrease in production, the *Survey* said. The total car loadings for November 28 and 29 were 48,870 cars, which was smaller than on the corresponding days of any week since last July.

The year 1921, according to the report, is roughly 45,000,000 tons behind 1919, 123,000,000 tons behind 1920, and about 144,000,000 tons behind the average of the war years, the 1921 production being given as 372,106,000 tons.

"Before concluding, however, that this subnormal production forecasts a shortage in the future," the *Survey* said, "the great decrease in consumption, which has followed the business depression must be kept in mind. From the evidence now at hand it appears that the decline in output has been offset by a cut in requirements, and that consumers' stocks today are no smaller than a year ago.

"The all-rail movement of bituminous to New England continued to decline in the week ended November 26. There was a slight improvement in anthracite shipments. A total of 3,184 cars of anthracite and 2,928 cars of bituminous were forwarded through the six rail gateways over the Hudson. When compared with the week preceding, this shows an increase of 187 cars of anthracite and a decrease of 94 cars of bituminous. Bituminous shipments were only about 62 per cent of those in the corresponding week of 1920.

"An increase in tonnage consigned to New England brought the total handled at Hampton Roads piers during the week ended November 26 back to the level of the first half of the month. The total dumped was 274,498 net tons, of which 174,965 tons was cargo coal for New England. Exports continued to decline, reaching the low point of 32,576 tons.

"The movement of soft coal from Lake Erie ports improved somewhat in the week ended November 27. Reports from the Ore and Coal Exchange show that a total of 346,705 net tons was dumped. In comparison with the week preceding this was an increase of 73,136 tons. Of the total dumpings, 335,949 tons were cargo coal and 10,756 tons were vessel fuel.

"The cumulative dumpings during the present season now stand at 22,972,280 net tons."

An inventory of coal stocks as of November 1, taken jointly by the Department of Commerce and the *Geological Survey*, shows that there was at that date a total of about 47,400,000 tons of coal in the hands of consumers, or approximately 43 days' supply. This compares with stocks as high as 63,000,000 tons in the past.

SOME FACTS ABOUT ANTHRACITE

The General Policies Committee of Anthracite Operators was established some time ago with offices at 437 Chestnut Street, Philadelphia, for the general purpose of acquainting the public with the facts about that branch of the coal industry and particularly to furnish information to all inquirers. Advertisements have been inserted in daily newspapers asking those who desire information to communicate with the committee.

The inquiries cover a very wide range of subjects. Many of the letters express surprise at the facts set forth in the advertisement. A few are openly incredulous.

For instance, one resident of Philadelphia asks if the Committee expects "any sane person to believe that 18 tons of water must be pumped for every 10 of coal mined." This correspondent would be interested in the Alliance Colliery of the Lehigh Coal & Navigation Company, where 35 tons of water are pumped for every ton of coal shipped.

Most of the writers exhibit a desire that is most gratifying to the committee, for specific information. All of the letters are answered promptly and in detail.

During the first few weeks of the advertising campaign, many of the correspondents indicated a misunderstanding of the purpose of the advertisements. They wanted to know why wide differences existed between the mine prices quoted in the advertisements and the prices they were charged by their local retail dealers.

The explanation was made that the anthracite operators have no definite information of conditions responsible for retail prices in any locality. The operators know only the prices they receive for the coal loaded on cars at the mines. Their control of the coal ceases at that point. Varying freight rates and widely differing local conditions influence retail prices and of these the operators have no direct knowledge.

Other inquiries cover many interesting points. Robert Sykes of Nutley, N. J., writes:

"What we consumers would like to know is, why coal is still selling at 100 per cent above the 1914 price when every other commodity has dropped from peak prices all the way from 10 to several hundred per cent, and all have had the same general conditions to deal with that you have."

The committee replied to Mr. Sykes in this way:

The principal reason that the prices of anthracite have not been reduced in sympathy with those of other commodities is that the cost of production is governed by wage scales which were fixed by the award of the Anthracite Coal Commission of 1920 and this award, by order of the President himself, was written into a contract which does not expire until March 31, 1922.

The report of the Federal Trade Commission of June 30, 1919, Pennsylvania anthracite, contains a table showing that the labor cost alone was more than doubled between January, 1913, and December, 1918, and upon this was added an increase of 17 per cent by the award of the Anthracite Coal Commission in 1920.

The same report of the Federal Trade Commission (Page 5) gives a table showing that the margin to the anthracite operators in the period from January, 1913, to December, 1918, which covered the World War, ranged from 19 to 72 cents per ton.

The weighted average for the entire period shows a margin of 42.8 cents per ton from which all selling expenses, reserves for non-insurable risks and Federal taxes had to be paid before any profits were available for dividends or surplus.

As the average investment in an anthracite colliery, according to the Engineers' Committee of the U. S. Fuel Administration, is from \$7.50 to \$8 per ton of output, and as 6 per cent on such an investment would be from 45 to 48 cents, it does not appear that the profits in the anthracite industry during the war or since have been such as to encourage investment in the business.

A. C. Colombo of Newark, N. J., voices a complaint which was received from very few correspondents. He wrote:

"The coal matter has been an interesting subject of discussion among my neighbors and, regardless of the high rates, the general complaint is an excessive quantity of slate, stone and the like being delivered as coal."

It was explained to Mr. Colombo and other writers on the same subject that the anthracite industry has for years maintained standards of preparation, which included the size of the screens over which the various sizes of coal are made and the percentage of slate and bone permissible in each of the various sizes. It was added that during the war these standards received the approval of the Federal Government and that they remained the same today. The chairman of the committee expressed confidence that the producers of anthracite are as keen for proper preparations of their coal as are the consumers who purchase it and closed his letter with the following paragraph:

"Can you ascertain for me through your local dealer, who the shipper of anthracite coal is from

whom he receives his supply? We would like to take up each one of these cases as they occur in an effort to correct anything that may be wrong."

An interesting point was developed by W. C. Mott of New York. It seems that Mr. Mott desired to purchase 100 tons of egg and stove coal to be delivered to a local church. He asked several retail dealers for quotations and wrote the committee that "with the exception of one or two, the prices were identical, which makes it appear that these prices must be made by agreement or through the local coal dealers' exchange."

After explaining to Mr. Mott that the operators' control over the coal ended when it was loaded on cars at the mines, the chairman offered the following as a possible solution of the problem:

For a product which possesses the practically uniform quality of anthracite, there is no more reason for a wide variety of prices than there is for the prices of wheat, corn, oats and cotton, copper, lead, zinc and other agricultural or mineral products whose prices are substantially uniform.

It costs some farmers more to produce their corn or wheat than it does others, but the farmer must sell his product at the same price that his more favored competitor secures. So it is with the standard metals and with anthracite.

Incorrect information published in the newspapers is responsible for frequent mistakes on the part of the consumers whose conclusions may otherwise be entirely logical. Thus C. J. Hart writes to the committee from Boston that he unable to reconcile the quotations of \$7.90 for stove coal at the mines, which was the inside quotation in the advertisement to which Mr. Hart referred, with the Boston retail price of \$15, when, as he says, "according to one Boston newspaper, the freight rate from the mines is only \$4.40."

Mr. Hart was informed by the committee that the rail freight rate from the mines to Boston is \$4.76 plus 14 cents tax, or \$4.90 altogether. The committee also wrote:

Approximately 25 per cent of the product of the anthracite mines is that of the individual operators, whose differential prices, authorized by the United States Fuel Administration to a large extent continues. Assuming that the Boston dealers obtain one-fourth of their supplies from "individuals" and three-fourths from the large companies, the average price at the mine for Boston delivery would be approximately \$8.10 per gross ton. This would make the cost to the dealer approximately \$13 a gross ton, or about \$11.50 net a ton of 2,000 pounds, which is the standard retail ton throughout the anthracite consuming territory with the exception of Pennsylvania and Maryland.

Several correspondents wanted to know why they could not buy coal in carload lots direct from the mine for their own use and why several consumers could not club together and buy a carload and distribute it among themselves.

It was pointed out to these writers that during the period of the control of the industry by the United States Fuel Administration, as well as before and since that time, the retail dealer was recognized as a highly necessary factor in the distribution of anthracite and, as such, entitled to a fair profit above his expense of maintenance and operation.

The Fuel Administration prohibited the shipment of anthracite in carload lots to individual consumers or to groups of consumers. The principal reason for this was that, acknowledging the importance of the retailer if half the people of a community were permitted to buy direct from the mines the remainder of the population would be compelled to pay the retailer a higher price because, handling only half the tonnage, all of his overhead expenses would have a divisor only one-half as great as it would be if he handled the entire tonnage of the community.

During the stringent times last year, it became necessary in a few instances, to ship car-lots direct from the mines to isolated communities which otherwise would have been without coal. When the cost of these shipments, delivered in the consumers' coal bins, was figured up, it was found to be greater than if the coal had been purchased through retailers in the regular way.

The Farmers Grain & Coal Company of Covell, Ill., is to be conducted by W. C. Rogers. He succeeds A. L. Nicol as manager.

The coal business and feed mill located at Holley, N. Y., have been sold by L. B. Whitbeck. Mr. Whitbeck retired from active business.

The retail coal business of R. C. Younce at Newark, Ohio, has been purchased by L. G. Woodruff. He will continue the hay, grain and poultry business.

H. H. Bane, A. B. Ryder, A. B. Carpenter have incorporated at Mulberry, Crawford County, Kan., as the Harmony Coal Company. Its capital stock is \$18,000.

The entire business of the Farmers Elevator Company at Waverly, S. D., has been taken over by the new Farmers Grain & Coal Company. L. Marsh is president; C. W. Bremer, manager.

Operations have been resumed by the Grand Prairie Coal Company of Ozark, Ark. The company has been idle for several months during which a change in management was effected by the receiver.

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WILL APPRECIATE

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IT REACHES THE
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Smokeless, By-product, Domestic, Steam Smithing

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Quality—Service—Finance—100 Per Cent

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FIELD SEEDS

[Continued from Page 470]

LESPEDEZA PRODUCTION IN 1921

The 1921 production of Lespedeza seed is expected to be 10 per cent less than that of last year, according to reports received by the Bureau of Markets and Crop Estimates during the week ending November 26, which indicate lower yields per acre in practically all producing sections. Reports from 19 shippers at 11 shipping points show shipments of the 1920 crop last season is approximately 1,525,000 pounds, compared with anticipated shipments of the 1921 crop this season of 1,365,000 pounds.

THE KANSAS CITY SEED MARKET

BY B. B. BROWN

Trade in seed continues dull at Kansas City, with prices for most grades nominally unchanged. Advices to dealers indicate that supplies of Millet and Cane seed will be small. Only a few small shipments have been received on the local market. Kansas and Missouri are sure to have a small harvest of these two seeds and in Colorado, where the yield was fair, the quality was poor. In Kansas and Oklahoma the crop of Cane is fair. The crop of Sudan Grass was poor, even in Texas, where the yield was probably not more than half as large as a year ago. Recent importations of Alfalfa seed from South America have restricted demand for domestic offerings. Supplies of Clover and Timothy are small and generally are in the hands of dealers who look for fancy prices next spring.

The following quotations are for carlots from first hands: Alfalfa, per cwt., fair to good \$10 to \$14; Timothy, per cwt., \$4 to \$5.25; Clover, per cwt., \$12 to \$19; Bluegrass, per cwt., cleaned, resale, \$35 to \$45; Millet, per cwt., nominally, 90 to 95 cents; Sudan, per cwt., nominally, \$2 to \$2.60; Cane, per cwt., nominally, 90 cents to \$1.

CLOVER AND TIMOTHY AT TOLEDO

"Clover market has shown a firm undertone this week," say C. A. King & Co., Toledo, Ohio, under date of December 10. "Offerings have been very light. December Clover has gone to a premium over March. Total deliveries have been disappointing. There is still some shortage in December. Hedgers have been confining their operations to the more distant futures. Cash demand is quiet. Eastern dealers do not appear interested. They do not feel like stocking up at present. Spring trade should be active. Stocks at Toledo are not excessive. Fresh offerings from the country are very light.

"Timothy market has been firm. Cash demand light but futures have been in fair demand. With the holiday season approaching, trade will be light, but market should do better after the turn of the year.

"Stock Red Clover here shows 20,441 bags. Alsike 8,337 bags. Timothy 35,842 bags. Receipts Red here this week 672 bags against 1,018 bags last week and 1,073 bags last year. Season to-date 20,857 bags against 16,072 bags last season and 12,805 bags two years ago. Shipments this week 373 bags against 86 bags last week and 542 bags last year. Season to-date 3,274 bags against 4,618 bags last season and 5,034 bags two years ago. Alsike receipts this week 164 bags against 99 bags last week and 176 bags last year. This season 6,176 bags against 1,708 bags last year and 6,576 bags two years ago. Shipments this week 117 bags against 110 bags last week and 43 bags two years ago. This season 2,167 bags against 620 bags last season and 4,535 bags two years ago. Timothy receipts this week 2,892 bags against 1,380 bags last week and

854 bags two years ago. This season 15,846 bags against 9,774 bags last season and 42,306 bags two years ago. Shipments this week eight bags against one bag last week and 18 bags last year. Season to-date 3,448 bags against 15,888 bags last season and 13,623 bags two years ago.

"Receipts today 276 bags Red Clover, including 28 rejected and 248 N. E. G. Alsike receipts 6 bags. Timothy 388 bags, including 8 rejected and 380 sample. Shipments 8 Clover.

"Imports at New York this week include 350 bags Red Clover, 239 Crimson, 46 White and 1,086 Rape. Exports 761 Timothy and 100 Alsike. Baltimore exported 37,750 pounds Timothy to New Castle."

CLOVER AND ALSIKE STRONG

In their market letter of December 10, Southworth & Co., of Toledo, Ohio, say: Clover strong and sharply higher this week. Offerings and trade light. Seed houses reporting better demand for cash seed, both prompt and deferred shipment. Country offerings light. On account of decrease in receipts and improved cash demand dealers are removing some hedges, purchasing both nearby and deferred futures. Small deliveries on December contracts. Still some short interest in December, but not large. Receipts falling off sharply, only 672 bags this week. Shipments 373. Total receipts season to date 20,857 bags, compared with 16,072 last year. New York reports imports 350 sacks.

A large seaboard dealer writes: "Regarding conditions in the East, the situation has brightened up somewhat and they are firmer in prices than they have been for the last six weeks. Dealers are a little more inclined to make purchases, and we look forward to better conditions after the first of the year."

Alsike also strong and higher. Better demand and light offerings. Receipts this week 164 bags, shipments 117. New York reports exports 100 bags.

Timothy firm. Trade inactive this week. Some deliveries on December contracts. Receipts increasing. This week 2,892 bags. Most of this seed has already been purchased by seed houses and hedged in this market. New York reports exports 761 bags, Baltimore 37,750 pounds.

On account of light receipts there is an excellent spot demand here for all seeds and we strongly urge consignments.

NEW YORK SEED MARKET QUIET

BY C. K. TRAFTON

Trade in field seeds generally has been as quiet as usual at this season, and speaking in a broad sense the market is without particular feature. Although prices show striking changes in a few varieties they are traceable to special local conditions rather than to general market conditions.

Alfalfa, which had enjoyed a fair degree of activity in October became quiet during November. Still, while prices were not notably changed, the undertone became slightly firmer. For one thing, western shippers raised their prices on good seed to 17 cents, freight paid at eastern points, which was slightly above the local average. In addition, South America contributed much less liberally, the month's arrival, including 769 bags from Uruguay,

amounting to only 3,450 bags, compared with 6,735 in October. Practically no more offers are being received from Argentina, where shippers are evidently awaiting bids. For a time France offered some choice seed at 14 cents c. i. f., but these were quickly snapped up and little or nothing is now being offered.

Alsike has been quiet as usual in November, but while a slightly easier feeling prevails in some quarters other dealers regard the general situation as firm owing to the destruction of 5,000 bags by fire at Hagersville, Ont. In spite of the improvement in European exchange rates, notably sterling, export business has been dull. Shipments for the month were only 300 bags to the United Kingdom, against 400 in October.

Timothy has gained another quarter cent, partly because of depletion of supplies in the West, and partly owing to much larger exports, the total for the month being about 4,570 bags, mainly to Denmark, against about 2,600 in October. Still, fresh export business has been disappointing in view of the better exchange situation. There has been considerable domestic business for future shipments, chiefly at 7 cents.

Red Clover has remained quiet and nominally unchanged, although arrivals showed further enlargement, the total being 1,940 bags, against 1,740 in October. The month's total included about 1,090 bags from Germany, 600 bags from Chile, and 200 bags from Italy. Although it is still too early to tell much about the domestic crop, less disposition has been shown to buy in Europe as prices show wide differences of opinion in the various countries, and hence it is difficult to say just how cheaply seeds may be bought for shipment. Moreover, the general views abroad do not appear attractive, being only 1 or 2 cents below local quotations. It seems impossible to buy in Germany or France at less than 19 cents c. i. f., New York. While some Italian seed may be secured at 18 cents, there is some prejudice against it owing to fears of winter-killing.

Rapeseed is nominally unchanged locally, but the undertone is firmer as Holland is now quoting 5¼ cents at which figure some business has been done for import. Arrivals during the month were much lighter, about 850 bags, or 3,000 less than in October. Japanese quotations are too high to permit of business, about 5.30 cents c. i. f. Pacific ports.

While Kentucky Bluegrass is quoted about the same as a month ago, the Canadian variety is about 4 cents higher. Supplies are light, although exports remain small, only about 230 bags for the month, against 270 in October.

Redtop has remained stationary. In spite of the strength in sterling exchange, only 600 bags were shipped to the United Kingdom which took about 5,000 bags during October. There were no shipments to the Continent, against 3,060 bags in October.

Orchard Grass quotations are about unchanged, but the tone seems to be slightly easier as Den-

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mark is offering at 16 cents. Still, the arrivals from that country were only 920 bags, against 2,180 in October and 12,070 in September from all points.

English Rye Grass is about 2 1/4 cents higher, although arrivals were larger, 3,250 bags, against 2,500 during October. Crimson Clover has advanced about 1 cent. Arrivals were only 300 bags, compared with 610 during October. White Clover arrivals were 500 bags, against 330 in October. A slightly easier tone is noted in some quarters, although other dealers quote the same as a month ago.

Hairy Vetch has developed a firmer tone as a shortage of supplies has become apparent. Arrivals during November were 375 bags, compared with 250 in October, but latest reports are that there will be no more seed available for export and few if any quotations have been received.

MILWAUKEE SEED TRADE

BY C. O. SKINROOD

Some new phases are presented by the seed trade of Milwaukee for the past month. The receipts of Timothy seed were 918,241 pounds, as compared with only 60,000 pounds for the same months a year ago. Receipts were 15 times as large as a year ago, indicating heavy receipts as compared with normal. Shipments of Timothy seed are less striking, with 283,413 pounds for the past month as compared with shipments a year ago of 163,043 pounds. Shipments were therefore a little less than twice as large as a year ago. Comparing receipts and shipments for the past month in Timothy seed, the receipts were about three times as large as shipments, indicating additional stocks due to the selling wave on the part of producers.

The receipts of Clover seed at Milwaukee for the month of November were 328,507 pounds, as compared with receipts a year ago of 124,024 pounds. Receipts were therefore almost three times as large as for the corresponding month of 1920. Shipments of Clover seed at Milwaukee for the month of November were 1,179,808 pounds, as compared with 401,281 pounds a year ago. Shipments were almost three times as large as a year ago for the corresponding period.

The most striking comparison is that of Clover seed receipts and shipments for the past month, with shipments almost four times as large as the receipts. The outstanding feature of this comparative table is the large receipts of Timothy and only fair shipments as compared with rather light receipts of Clover seed and very large shipments—exceeding in the aggregate 1,000,000 pounds.

The official report of the Milwaukee Chamber on the seed market for the past month indicates that trade was comparatively steady in the period when grains were going down to the lowest level of the last seven to fifteen years. Clover and Alsike were reported as falling back during this period from \$1 to \$1.50, while flax went down 12 cents a bushel, White Clover was unchanged and Timothy advanced from 50 to 75 cents.

The demand for seeds was reported as active for fairly large offerings and competition was sufficiently keen between buyers to hold prices here at a satisfactory level as compared with competitive markets. Red Clover quotations ranged from \$15 to \$19.50, Alsike went at \$11 to \$16, White Clover sold at \$32 to \$40, flax seed was quoted at \$1.72 to \$1.85, poor to good Timothy sold at \$3.50 to \$5 and the choice to fancy ranged from \$4.75 to \$6.

Wisconsin has taken the lead over other states in the production of pure-bred Clover seed, according to Joseph A. Becker, crop reporter for the state. This leading position has been held for four years, with Illinois second, he maintains. De-

spite this heavy home production and the consequent shipping of large quantities of seeds to other states, Wisconsin farmers still import seed, says R. A. Moore of the agronomy department of the University of Wisconsin.

"The Wisconsin Experiment Association has done much to keep the price of Clover seed in the state down to a fair level," he said, speaking from the attitude of the large majority of farmers of Wisconsin who are compelled to buy Clover seed every year. "In Iowa, for example," he continued, "a new variety of Clover seed was put on the market recently and sold from \$10 to \$15 an ounce. Nothing like that has been permitted in the state of Wisconsin."

More than \$100,000 worth of pure-bred corn for seed and about \$80,000 worth of small grains have been listed with R. A. Moore, secretary of the Wisconsin Experiment Association, for sale throughout the state and elsewhere. About 5,000 bushels of soy beans were listed.

A conference which may have much to do for the developing of Clover in Wisconsin was held at the College of Agriculture at the University of Wisconsin. The subject of Clover development was discussed at great length and finally a committee was appointed to make a report on all phases of the subject.

The committee chosen is C. C. Bristow, a farm-
[Continued on Page 478]

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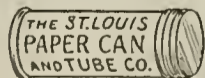
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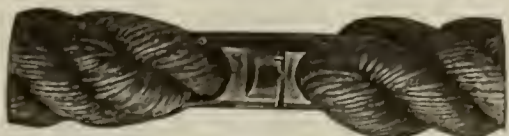
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FIELD SEEDS

[Continued from Page 477]

ers' institute worker, Black River Falls; Henry Nichols, assistant in the department of farm crops of the state fair, also seed dealer, Fond du Lac; E. J. Delwiche of the Agronomy Department of the College of Agriculture and superintendent of sub-station experiment farms in northern Wisconsin, Green Bay; H. W. Ullsperger of the Soils Department of the College of Agriculture and specialist in light soils, Sturgeon Bay; Edward Nordman, Chairman and Director of Markets, Madison; E. L. Luther, superintendent of Farmers' Institute, the latter acting with the committee in an advisory capacity.

The seed crop of Wisconsin appears to be a partial failure in many respects, judging from the latest corrections in the crop figures of the state. This state, the leading producer of Clover seed in the United States, reports only 201,000 bushels of seed, as compared with 338,000 bushels a year ago and a five-year average of about 298,000 bushels.

The average yield of Clover for the season is put at 1.7 bushels per acre as compared with two bushels last year and a 10-year average of 2.3 bushels. These figures indicate that 300,000 bushels of Clover is about the average crop of the state and that the yield will be about one-third less than normal for 1921.

The 1921 crop of field peas is put at 665,000 bushels, as compared with 1,063,000 bushels in 1920 and a five-year average of 873,000 bushels. The yield

is therefore about 25 per cent under the usual average. Yield per acre is given at 13 bushels in round numbers, compared with 19 bushels last year and a 10-year average of 15 bushels.

The crop of field beans is also short, with 103,000 bushels estimated for the past year, as compared with 147,000 bushels produced in 1920 and a five-year average of 157,000 bushels. The yield is therefore about one-third less than is normal for the state.

Flax, on the contrary, provided a good yield for 1921 with 93,000 bushels, compared with 101,000 bushels last year and a five-year average of 65,000 bushels. The yield is 10.5 bushels an acre, compared with 11 bushels last year and a 10-year average of 12.8 bushels. The total yield is considerably above the average, although the acre yield is under the average.

The Kellogg Seed Company says that general business conditions are looking upward and that the seed trade is bound to get its share of the added prosperity. The firm condition of the market for weeks, it is believed, means a very lively trade and demand for seeds right after the new year. The strong demand for Timothy, with light offerings, is announced by the Kellogg company as the real feature of the market. Prices are quoted by the company at \$20 to \$21 for the Red Clover, \$17 to \$18 for Alsike, \$6 to \$7 for Timothy, \$18 to \$19 for Alfalfa, and \$6 to \$7 for Sweet Clover.

The Courteen Seed Company reports that the quality of seed coming in is very good. Instead of the usual quiet business of the year, the company finds trade has been rather active, especially for the season. A good demand is said to be preva-

lent for almost all varieties of seeds and offerings are not large. After the first of the year, the Courteen Company sees a very keen buying demand in the trade. Red Clover is quoted at \$20 to \$21, Alsike at \$17 to \$18, Alfalfa at \$16 and Timothy at \$6.40.

The L. Teweles Seed Company reports that while trade in seeds is light, it is better than usual at this time of year and the prospects are for excellent trade later. In fact, the year 1922, the company forecasts, will see the best seed business for many years. A very strong demand is reported for Timothy, with the supply light and scarce. The company quotes Red Clover at \$20, Alsike at \$16, Alfalfa at \$14 to \$17, Timothy at \$6 and Sweet Clover at \$7.

The North American Company also shares the general feeling that 1922 will surely be a record year in the seed business. One of the reasons cited is the rapid improvement in other lines of business, which, it is assumed, is sure to help the seed business prosper. The demand for seed, the North American Company says, is steadily improving. The big rush in seed trade is expected to start late in December and to carry over strongly into the new year. The Timothy seed market is found especially strong, with prices at \$5.50 to \$6.25. Coupled with the short supply in Wisconsin and elsewhere is the usually heavy demand. The North American Company quotes Red Clover at \$17 to \$20, with offerings light and demand heavy, while quality of offerings is high. White Clover has been cleaned up; Alsike is quoted at \$13 to \$16, while Alfalfa rules at \$14 to \$18, with light supply. White Mountain Sweet Clover is found scarce and prices are \$8 to \$9.

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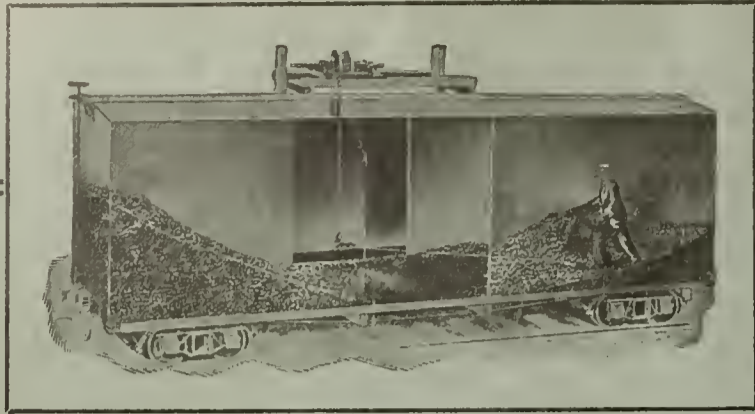
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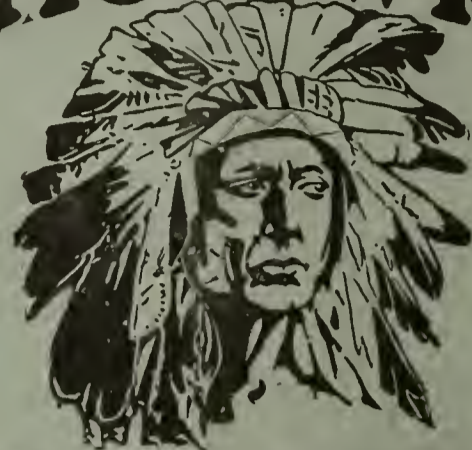
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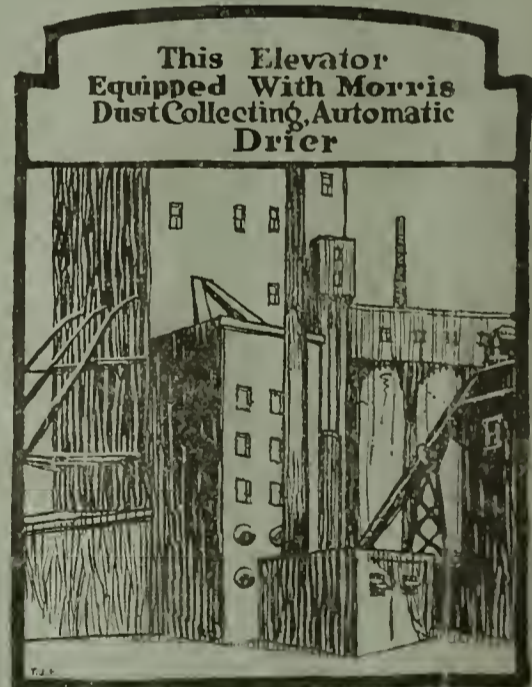
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