THE STORY

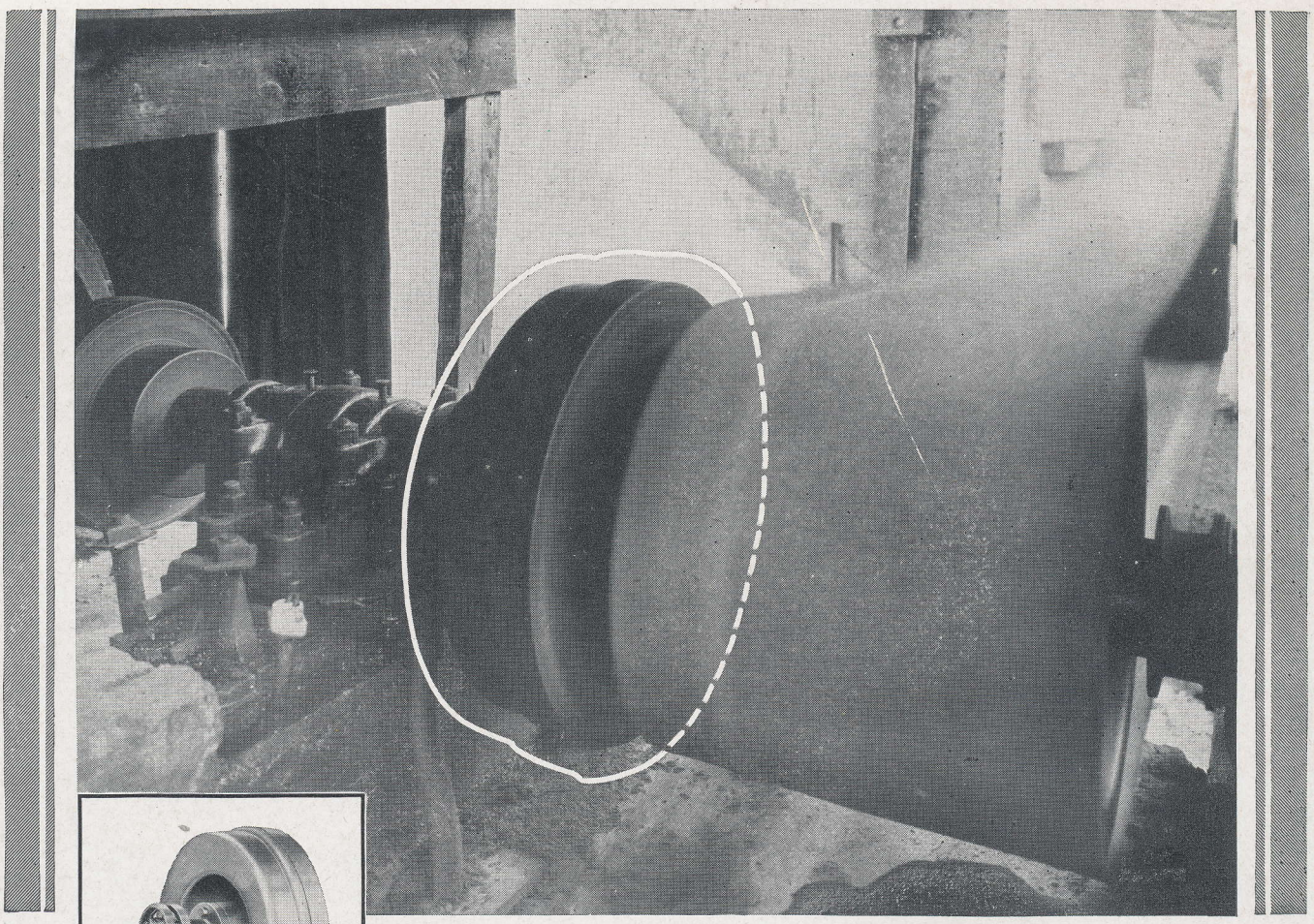
of

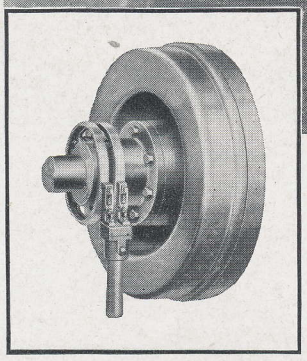
Stearns High Duty Magnetic Equipment

as told by

Stearns 1930 Advertising

HIGH STEARNS DUTY
MAGNETIC EQUIPMENT





We invite correspondence with engineers and others concerned with the application of magnetic clutches.

For Severe Duty . . .

A "Stearns High Duty"

Where efficient power transmission and positive control is needed, such as the drive of a large gyratory crusher shown above, Stearns High Duty Magnetic Clutches meet all requirements.

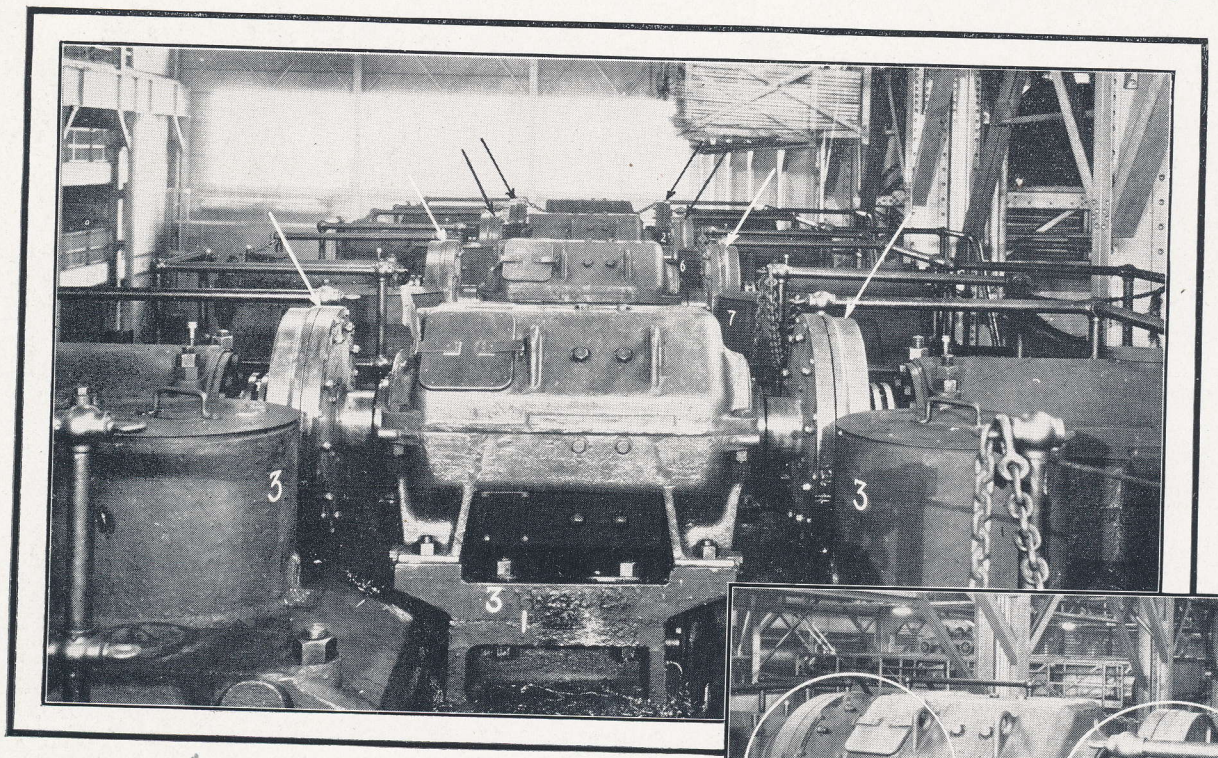
Stearns Clutches are distinguished by ease of operation, positive magnetic action, smooth acceleration, simplicity of adjustment, and fine, precision construction throughout, machined all over. They are the product of over thirty years' experience in the designing and building of magnetic equipment for every industry and service.

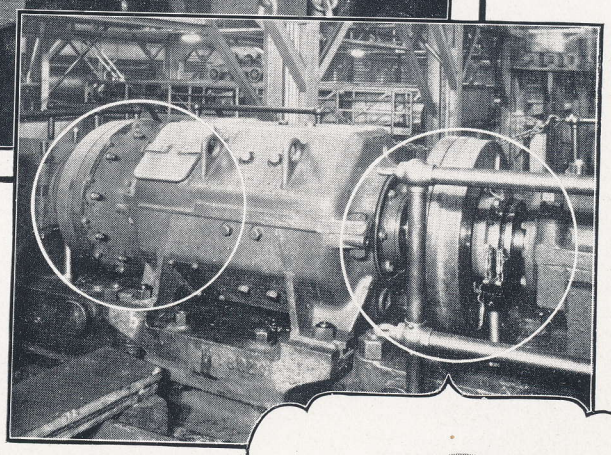
Consult us on your next requirement.

MAGNETIC MFG. COMPANY
282 23rd Avenue
MILWAUKEE, WISCONSIN

HIGH STEARNS DUTY
MAGNETIC CLUTCHES

FOR High Speed, Precision Duty





STEARNS MAGNETIC CLUTCHES

THE illustrations show twelve strip steel mill units on the shipping floor of a large, nationally known builder of steel mill equipment. These units are destined for service rolling strip steel at high speed and to close precision thickness. Instantaneous and positive control is required to check any variation in the steel and to maintain precision production at high speed. The mill type motors driving these units are equipped with Stearns High Duty Magnetic Clutches to provide efficient power transmission and exact, positive control.

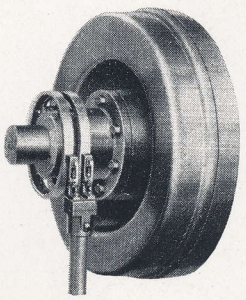
Stearns Clutches were selected because of their recognized qualities of ease of operation, positive magnetic action, smooth acceleration, simplicity of adjustment, and fine precision construction throughout.

MAGNETIC MFG. CO., 621 S. 28th Street, Milwaukee, Wis.

Offices in Principal Cities

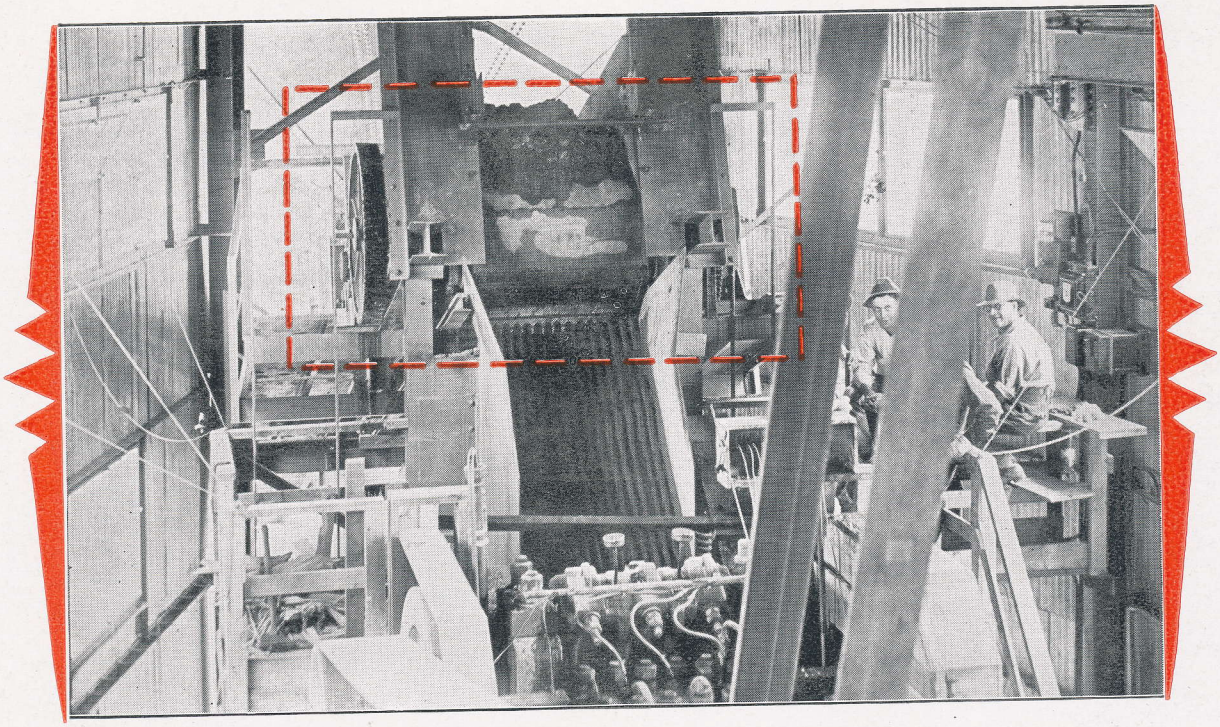
HIGH STEARNS DUTY

MAGNETIC CLUTCHES



We invite correspondence with engineers and others concerned with the application of magnetic clutches.

. . . WHERE INVISIBLE FORCES PROTECT THE CRUSHER!

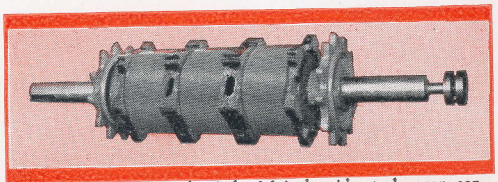


TRAMP IRON, in the form of coupling pins, drill bits, hammer heads, bits of rail, small car wheels, has a persistent habit of getting into rock and ore and working costly and time wasting damage to crushers and pulverizers.

By means of a Stearns High Duty Apron Conveyor Magnet, installed at the feeding end of an apron conveyor, such tramp iron can be completely and surely extracted and deposited safely outside the hopper of the crushing bins.

A typical installation is shown above. A Stearns High Duty Apron Conveyor Magnet is mounted on the shaft between the sprockets at the feeding end of the apron conveyor; all of the driving load of the conveyor being carried by the sprockets. Here the deep, strong magnetic field of the Stearns Magnet penetrates the mass of rock ore, holds the tramp iron and discharges it well back and underneath the end of the conveyor.

This is a Code 30-36 Stearns High Duty Apron Conveyor Magnet in service at a large smelting and refining plant handling lead ore. These Magnets are also widely used to purify fuel before pulverizing and to reclaim waste metal from foundry sand.



Code 18-36 — 18 inch pitch, 36 inch wide steel apron conveyor magnet for single beaded apron conveyor.

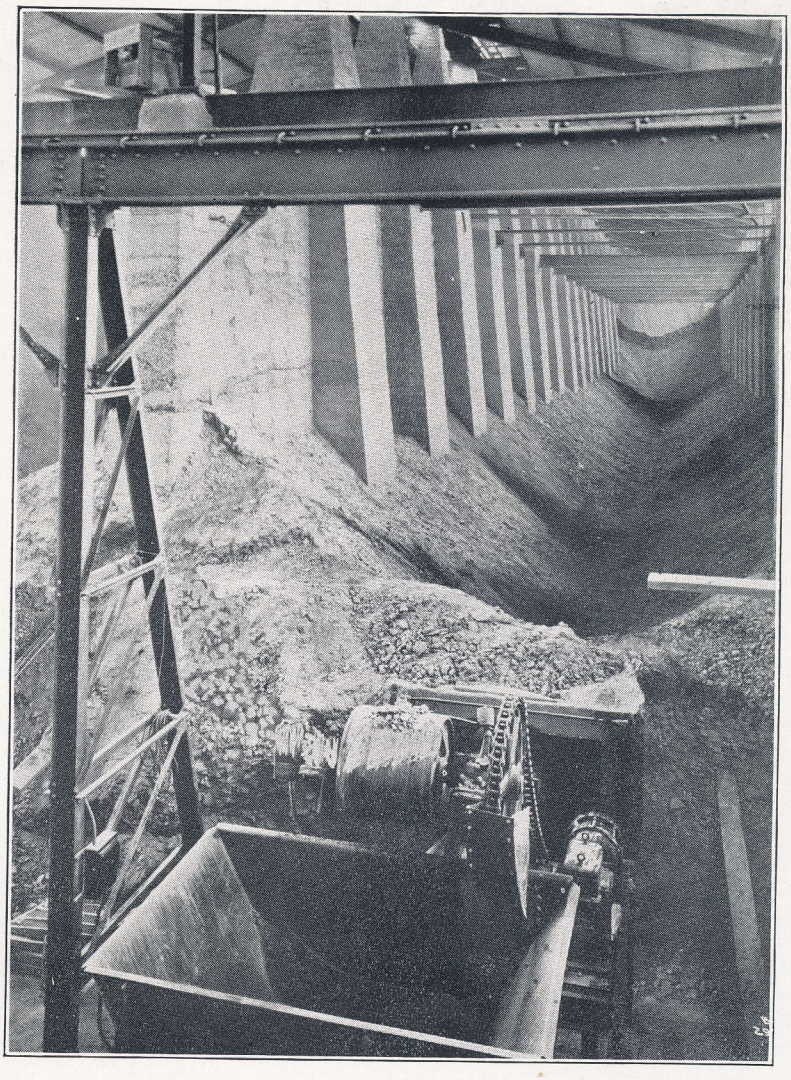
Write for Bulletin No. 29, descriptive of these Magnets and other Stearns Magnetic Separation Equipment.

MAGNETIC MFG. COMPANY

225 23rd Avenue, MILWAUKEE, WIS.

HIGH STEARNS DUTY
MAGNETIC SEPARATORS

Reprinted from THE IRON AGE, January 23, 1930



TAKING THE "PEPPER" OUT OF CLAY

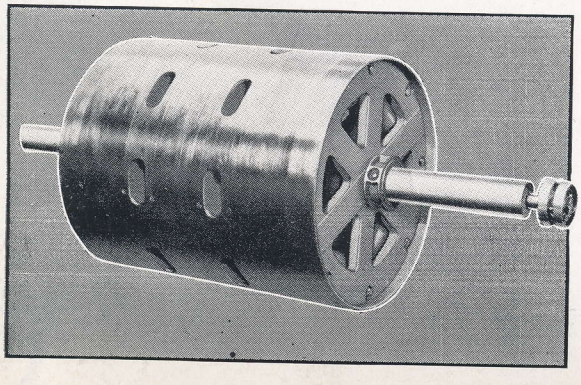
When fire destroyed the old Bessemer, Pa., plant of the Metropolitan Paving Brick Company, it left the clay storage "peppered" with nuts, nails, bolts, and tramp iron of all varieties. The clay was valuable but had to be rid of the junk iron to be utilized. Hand shoveling and picking would have been uncertain and prohibitively costly.

A Stearns High Duty Magnetic Separator Pulley installed as a driving pulley on the discharge end of a conveyor belt solved the problem. As the clay is conveyed to the dry pan it passes over the deep, powerful magnetic field of the Stearns Pulley which seizes and holds every particle of iron and discharges it clear of the clay. The Stearns Pulley has removed tons of such iron with positive protection to process equipment and made it possible fully to reclaim the clay.

If tramp iron is one of your problems, magnetic equipment will solve the difficulty. Consult us—thirty years' experience designing and building magnetic equipment.

MAGNETIC MANUFACTURING COMPANY

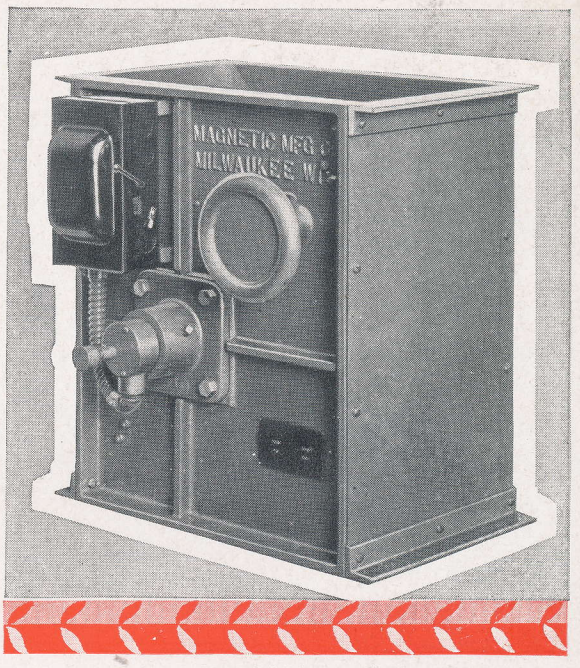
621 S. 28th Street *Milwaukee, Wis.*



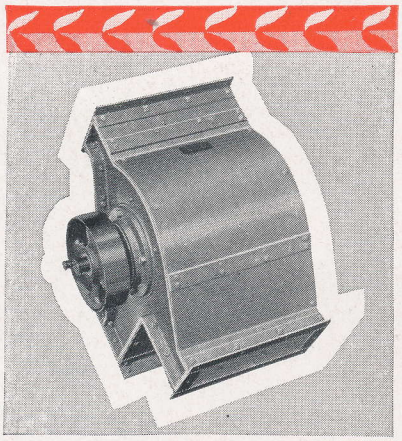
HIGH STEARNS DUTY

MAGNETIC EQUIPMENT

STEARNS' "Separate" Ball Bearings



Stearns Type LS Magnetic Separator



Stearns Type LP Magnetic Separator

—and Ball Bearings are a real problem in magnetic separation

NAILS, bolts, nuts, broken parts, tools, and other forms of tramp iron constantly stray into raw grain and are a constant source of danger in causing dust explosion or damaging milling machinery. Stearns Magnetic Separators have long been a recognized means of positive protection against this menace as attested by hundreds of installations in leading feed, flour, and cereal mills.

An interesting test in this connection was recently conducted at the Magnetic Mfg. Company laboratories under the auspices of the Mutual Fire Prevention Bureau, Chicago. Loose ball bearings were placed in grain and the grain passed through Stearns Type LP and LS Magnetic Separators for the purpose of testing the ability of these separators to remove the bearings. This is an extremely exacting test as ball bearings offer only a limited point contact to a magnetized surface as well as a practically uncontrollable tendency to roll on such a surface. Despite these difficult conditions these Stearns Separators conclusively demonstrated the power to positively remove ball bearings in several exhaustive tests.

The Mutual Fire Prevention Bureau has accorded us their enthusiastic endorsement of these separators and were much pleased with their exceptional performance in these tests. The Bureau unqualifiedly approves Stearns High Duty Magnetic Separators when installed in accordance with Mutual Fire Prevention Bureau Regulations.

To be sure of positive protection against tramp iron regardless of its form install Stearns Separators. Write for Bulletin No. 90 fully descriptive of Stearns Magnetic Equipment for flour, feed, and cereal mills.

Magnetic Manufacturing Company
277-23rd Avenue Milwaukee, Wis.

HIGH STEARNS DUTY MAGNETIC EQUIPMENT

SIMPLE, COMPLETE AND MAGNETICALLY AUTOMATIC . . . .

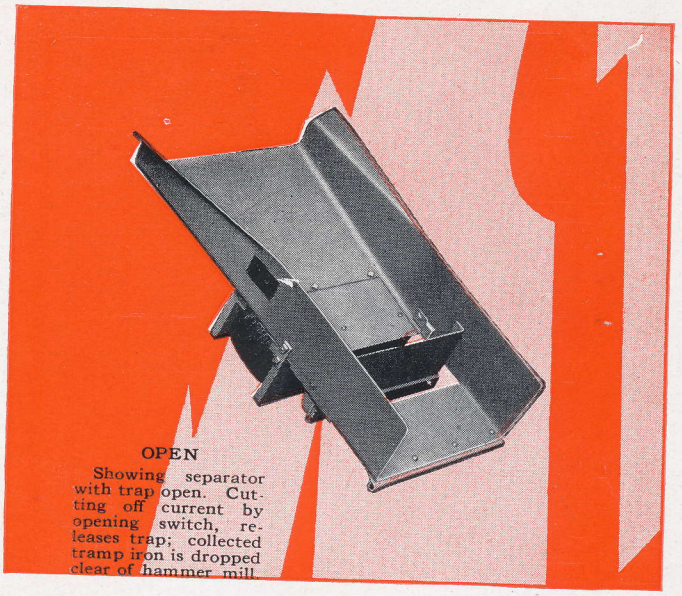
. . . . No Mechanical Contraptions Wanted or Needed

The Stearns Type FT High Duty Magnetic Separator is simple, complete, and *magnetically* automatic; it is entirely free of all mechanical contraptions, (sometimes necessary to the successful operation of equipment of this nature). It requires no special pulleys, belting, ropes, chains or other devices.

The complete separator, as illustrated, is attached directly to feed table. When tramp iron has collected it is released by cutting off current which automatically springs the trap, dropping collected iron and preventing its dispersal into the grain. Turning on current *magnetically* closes the trap; no resetting device of any kind is needed.

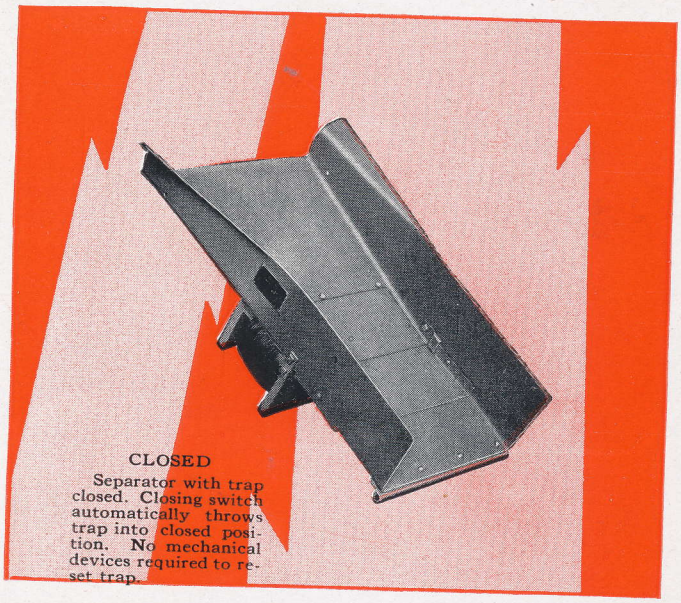
The Stearns Type FT is the only magnetic separator of its kind possessing this remarkable, magnetically automatic feature, fully covered by pending patent application. It is purposely made simple and compact for the needs of small flour and feed mills, and provides positive protection against the dangers of tramp iron.

Get the complete facts, return the coupon.



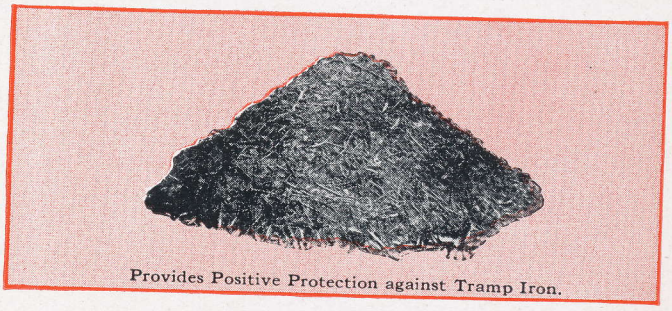
OPEN

Showing separator with trap open. Cutting off current by opening switch, releases trap; collected tramp iron is dropped clear of hammer mill.



CLOSED

Separator with trap closed. Closing switch automatically throws trap into closed position. No mechanical devices required to reset trap.



Provides Positive Protection against Tramp Iron.

HIGH STEARNS DUTY

MAGNETIC SEPARATORS

Write for this valuable bulletin on Magnetic equipment for flour, feed and cereal mills.

MAGNETIC MFG. CO., 630 So. 28th St., Milwaukee, Wisconsin.
Please send me Bulletin 90 and Facts on FT Separator.

Name_____

Company_____

Width of Spout_____ Capacity

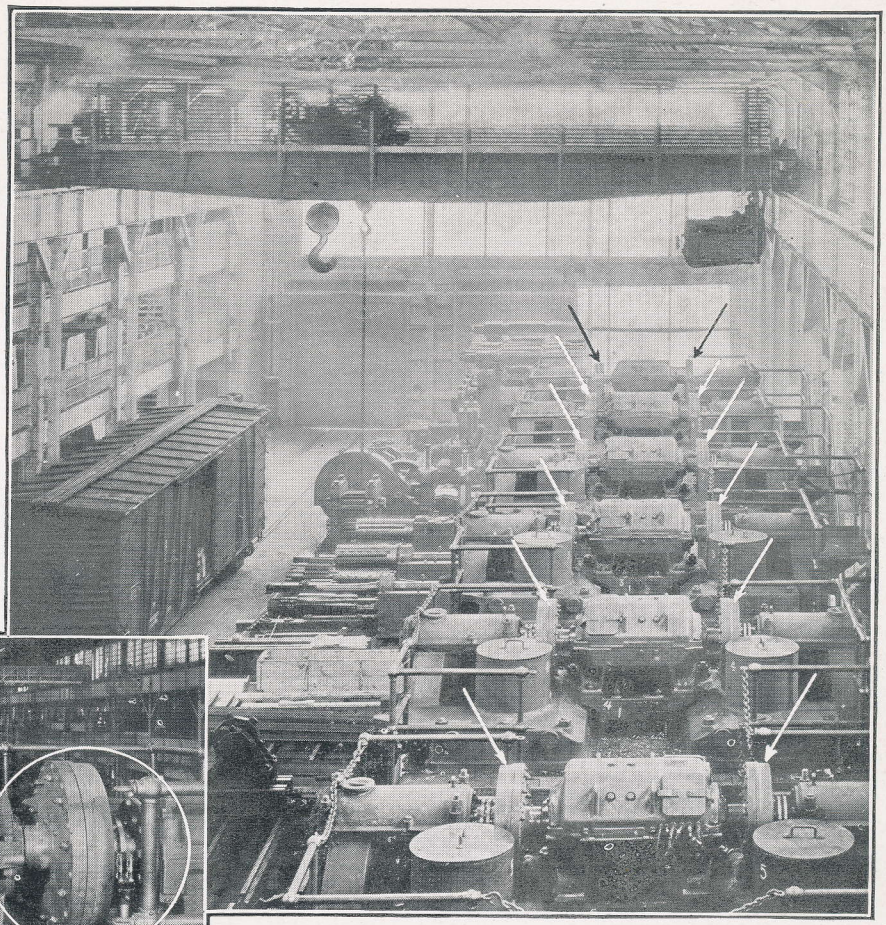
Kind of Material_____ Electric Current DC Voltage

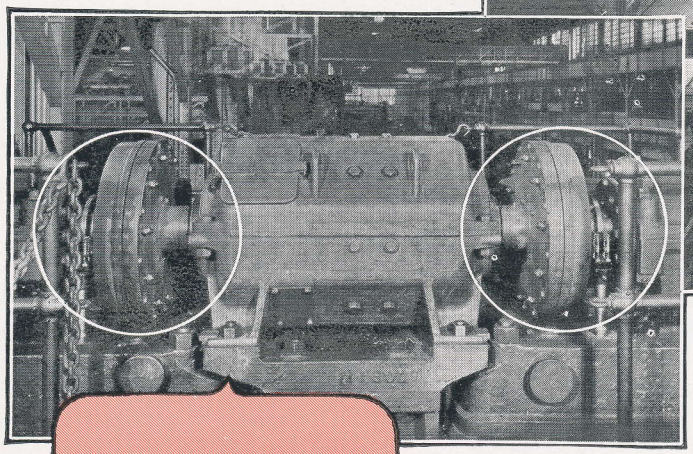
Address_____ City_____ State_____

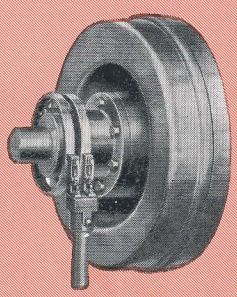
STEARNS MAGNETIC CLUTCHES

FOR Positive Control

"...Of These High Speed, Precision Steel Strip Mills!







We invite correspondence with engineers and others concerned with the application of magnetic clutches.

THE illustrations show twelve strip steel mill units on the shipping floor of a large, nationally known builder of steel mill equipment.

These units are destined for service, rolling strip steel at high speed and to close precision thickness. Instantaneous and positive control is required to check any variation in the steel and to maintain precision production at high speed. The mill type motors driving these units are equipped with Stearns High Duty Magnetic Clutches to provide efficient power transmission and exact, positive control.

Stearns Clutches were selected because of their recognized qualities of ease of operation, positive magnetic action, smooth acceleration, simplicity of adjustment, and fine precision construction throughout.

MAGNETIC MFG. COMPANY, 225-23rd Avenue, Milwaukee, Wis.

Offices in Principal Cities

HIGH STEARNS DUTY

Reprinted from The Iron Age, February 27, 1930

So that you may know how the Magnetic Manufacturing Company supports your selling with advertising and what story is told in this advertising, we are presenting you with this portfolio of 1930 advertising.

These advertisements appear in preferred position, usually back cover, in a selected list of publications circulating in the industries in which Magnetic equipment is used. The publications are:

Iron Age
Mechanical Engineering
Foundry
Engineering & Mining Journal
Chemical & Metallurgical Engineering
National Miller
Food Industries

In addition Stearns Magnetic Equipment is described and indexed in the leading year books, catalogs and directories of the principal industries in which we sell.

We have also included a series of photos which, in a measure, indicate the plant facilities.

Magnetic Manufacturing Company
Milwaukee Wisconsin

PLANT OF THE MAGNETIC MANUFACTURING COMPANY, MILWAUKEE, WISCONSIN.

Sand Conditioning

. . . . . Modern Foundries Use Magnetic Separators for Quick and Easy Means of Removing the Iron

CONDITIONING and tempering foundry sand sometimes presents difficulties because of the presence of unreclaimed iron in the form of fine shot, spillings, sprues, core wires, nails.

A positive and economical method of removing such iron is by means of a Stearns Magnetic Pulley Separator installed at the discharge end of a sand conditioning belt as shown in the illustration. The Separator positively removes all iron automatically, saves labor, and reduces the time required to recondition sand.

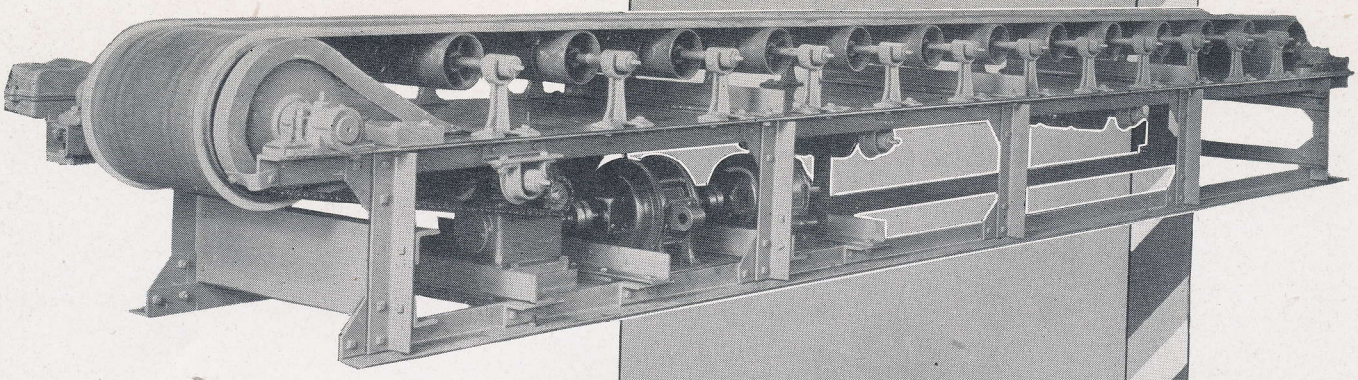
The magnetic pulley separator is one of several available for this service in addition to complete portable self contained units or units adaptable for use with a sand slinger on fine shot iron. Write for descriptive bulletins.

HIGH STEARNS DUTY
MAGNETIC EQUIPMENT

Magnetic Mfg. Company
278-23rd Avenue
Milwaukee, Wisconsin

Reprinted from THE FOUNDRY, Cleveland, February 15, 1930

UNIQUE UNIT FOR CLEANING AND MAGNETICALLY SEPARATING SCRAP



IN a problem of magnetic separation the key to its solution can often be found in experience with a previous similar problem.

A nationally known founder, operating one of the largest reclamation departments in the world, consulted us with regard to suitable equipment for cleaning and magnetically separating brass scrap. The brass scrap came to them intermingled with refuse of all varieties, bottles, shoes, cans, and miscellaneous junk. The problem was to build a unit which would make it easy to remove the miscellaneous junk as well as to separate the junk iron from the brass scrap.

We designed and built for them the Stearns Separator illustrated above. This consists of a simple picking belt with a magnetic separator pulley placed at the discharge end. Non-magnetic material and junk is picked off by hand as the material passes along the belt; scrap iron is held and deposited clear of the brass scrap below the pulley at the discharge end.

If this equipment interests you, write for the complete facts and put your own magnetic separation problems up to us . . . thirty years' experience designing and building magnetic separation equipment.

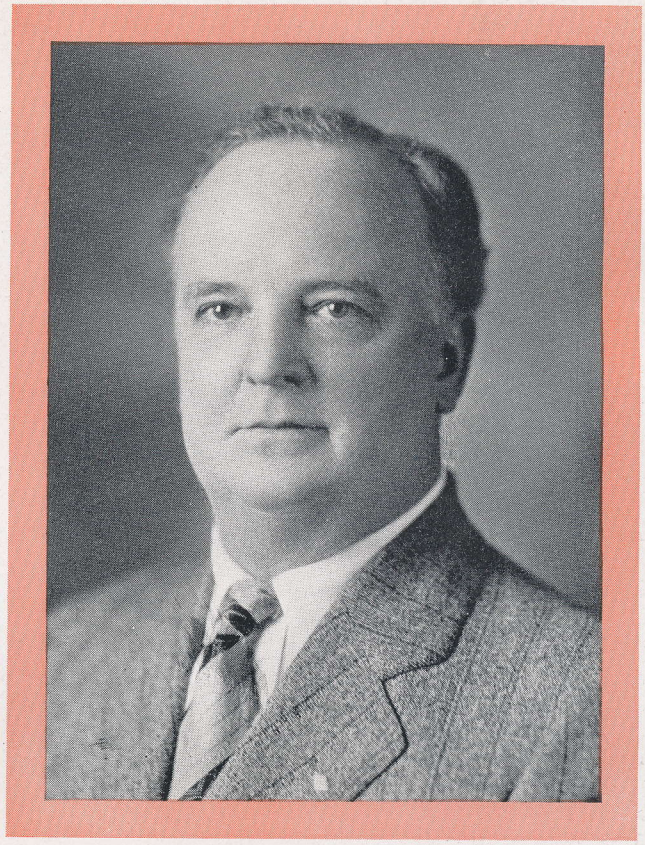
MAGNETIC MFG. COMPANY
278 23rd Ave. Milwaukee, Wis.

HIGH DUTY
STEARNS
MAGNETIC SEPARATORS

ENGINEERING DEPARTMENT — comprising a staff of experienced magnetic equipment engineers.

MAGNETIC *Engineering...*

A Review and a Forecast....



Mr. R. H. Stearns has been engaged in magnetic engineering for more than thirty years. He is recognized as an authority in the field and is responsible for many improvements in magnetic equipment. The company of which he is head owes much of its progressiveness to his efforts.

THE past is frequently a prologue to the present; the achievement of yesterday becomes commonplace compared with the accomplishment of today.

Magnetic engineering—the industrial application of electro-magnetism for concentration and purification of materials, protection of process machinery against tramp iron, and for handling services—has attained a degree of development undreamed of ten years ago.

Magnetic machines have been perfected for the separation and purification of materials heretofore unresponsive to magnetic action, such as grains, foodstuffs and other raw materials, as well as ores not previously susceptible to magnetic separation. Magnetized roller conveyors have been developed which possess the unique property of moving iron and steel pipes and sheets up an inclined plane against gravity. Magnetic clutches, although not new to industry, have been brought to a degree of efficiency and range of application unthought of years ago.

Magnetic Manufacturing Company engineers have contributed much to present day utilization of magnetic equipment. They believe that the future will bring advancement in magnetic engineering as absorbingly interesting as that of radio and related sciences. With this in mind they look forward to working with manufacturers and others interested in adapting magnetic equipment to special problems.

MAGNETIC MANUFACTURING CO.
630 S. 28th Street Milwaukee, Wis.

HIGH **STEARNS** DUTY

MAGNETIC EQUIPMENT

NATIONAL ENGINEER

APRIL, 1930

12

STEARNS SEPARATORS Installed at Deepwater Station

Coal Pulverizing Equipment
Protected by These Magnetic Separators

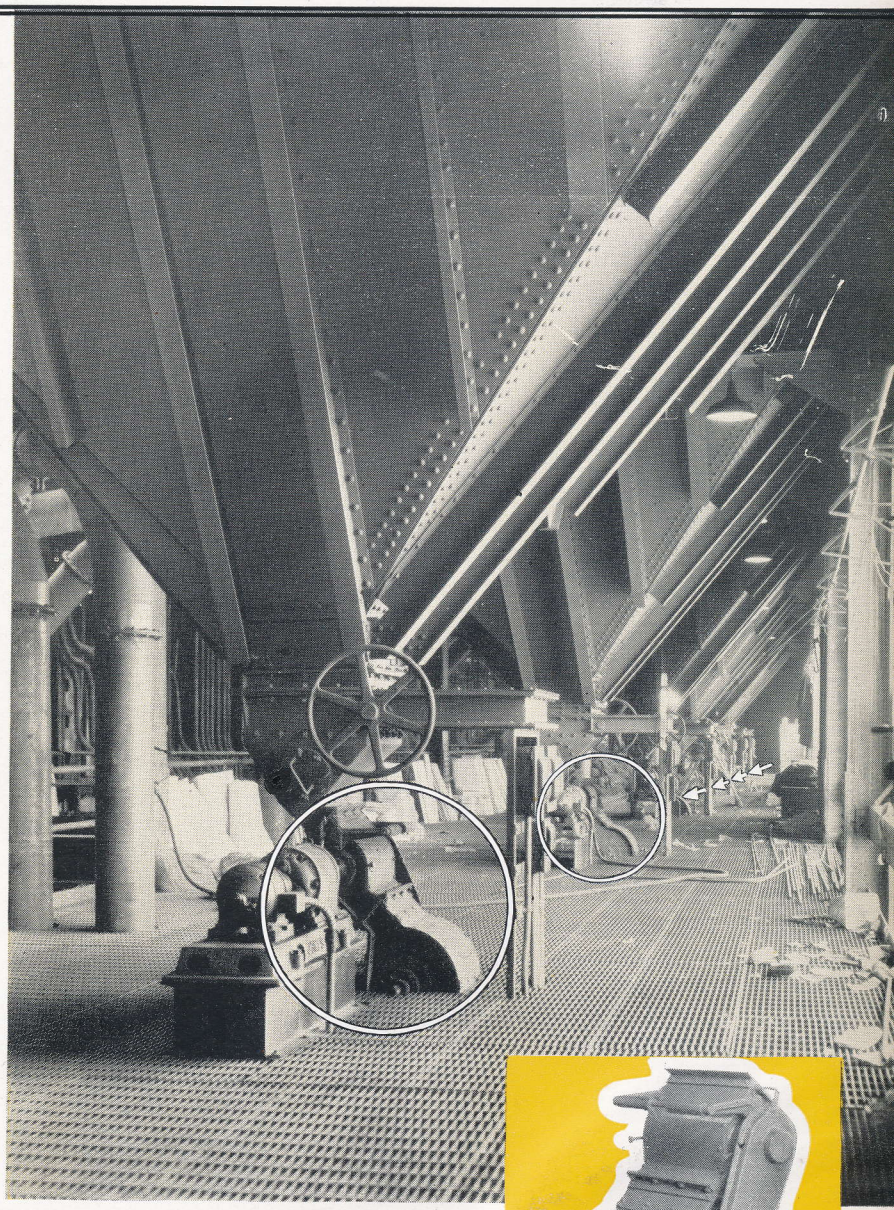
As a positive means of protection against injury by tramp iron to costly coal pulverizing equipment and for general safety, the new Deepwater Station at Deepwater, N. J., is equipped with Stearns High Duty Spout Type Magnetic Separators (Type LP).

These separators, indicated by circles and arrows in the illustration, comprise six units, mounted at the feeding end of the coal hoppers. Tramp iron is automatically and positively removed from the coal before it passes into the pulverizers, located below the floor grating shown in the illustration. In addition to these six spout type separators there are six pulley type Magnetic separators used with belt conveyors at other points in the Station.

The Deepwater Station is representative of Stearns Magnetic Separator installations for this service. If you use or intend using pulverized or stocker-sized coal, the protection of Magnetic separators is essential for costly crushing or pulverizing equipment. In fact, Magnetic separators are definitely specified in the Regulations for the Installation of Pulverized Fuel systems sponsored by the National Fire Protection Association.

Complete information on Stearns Separators for this service gladly furnished on request.

MAGNETIC MANUFACTURING COMPANY
621 South 28th Street **Milwaukee, Wisconsin**

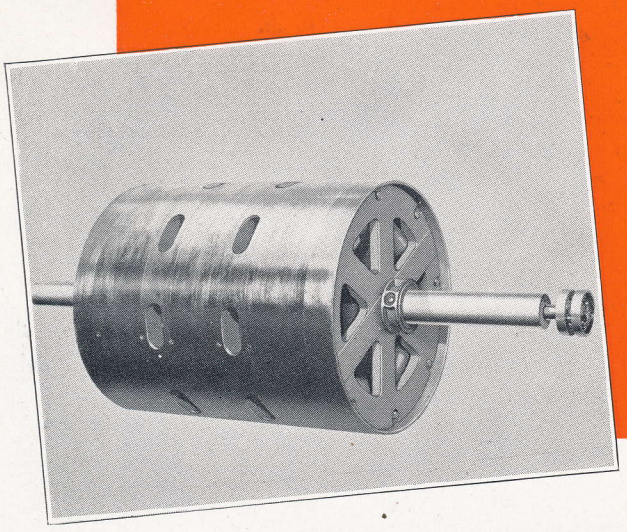


Stearns High Duty Magnetic Separator Type LP equipped with special feeding attachment.

HIGH STEARNS DUTY

MAGNETIC EQUIPMENT

We Make Both



Pulley or Suspension Type Magnetic Separators

Because we make both Pulley and Suspension type Magnetic Separators—we can recommend the proper type for each job *without* prejudice.

We recommend the *pulley* type for removing tramp iron from raw material . . . . because it is an integral part of the conveying system (head pulley) . . . . because it automatically separates and *discharges* tramp iron free of the raw material . . . . because periodic removal of collected iron is unnecessary . . . . and because there is no danger of a collected mass of iron falling into the crusher or other process machinery, through failure of electric current.

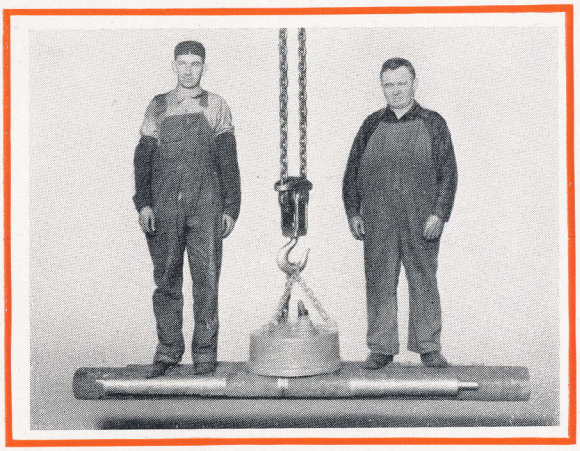
Magnetic separation by the pulley method is positive, yet pulley separators require less current consumption where pulleys are of proper design and construction.

We recommend suspension magnets for foundries, mills, and manufacturing plants to pick up scrap iron and convey metal parts about the plant, and for magnetic separation where conditions require this type of magnet.

The dangers of tramp iron are too great to be dismissed with uncertain, makeshift protection. Costly crushing and pulverizing equipment requires positive protection. You are certain of such protection when you install Stearns High Duty Magnetic Separators.

Magnetic separation is a complete science in itself. Consult us—thirty years' experience designing and building such equipment.

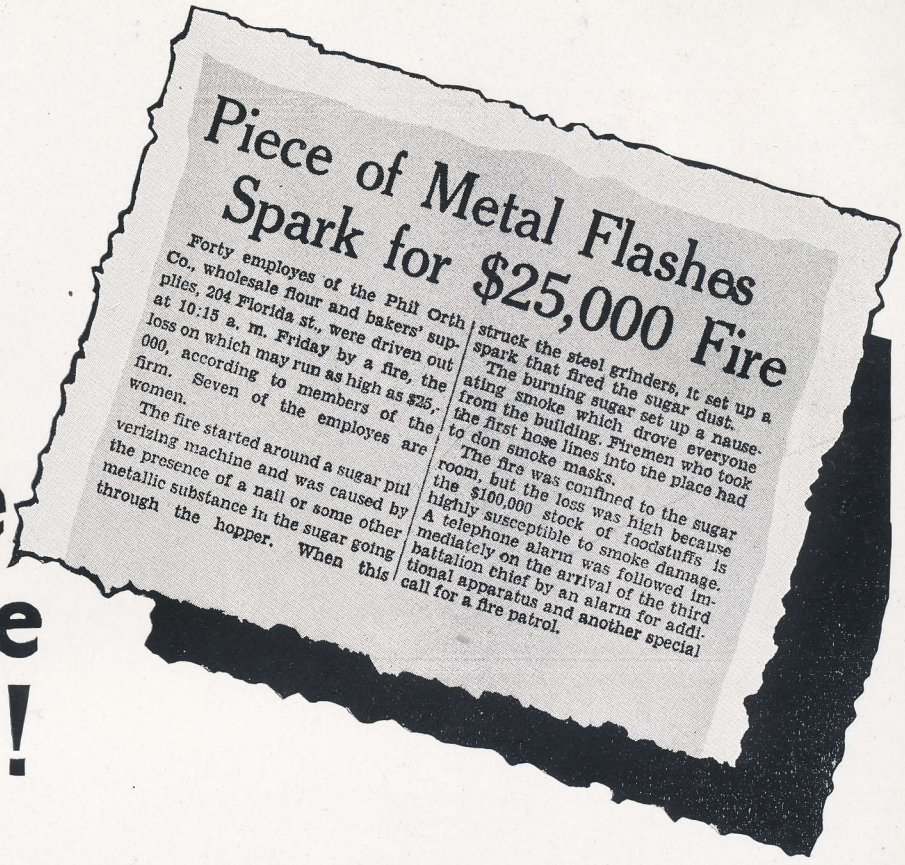
MAGNETIC MFG. CO.
621 S. 28th Street
Milwaukee, Wis.



Demonstrating the magnetic power of Stearns High Duty Suspension Magnets. Two men and steel shafting totaling 2,400 lbs, supported by magnetic attraction.

HIGH STEARNS DUTY
MAGNETIC EQUIPMENT

Don't "make" the front page this way!



Piece of Metal Flashes Spark for $25,000 Fire

Forty employes of the Phil Orth Co., wholesale flour and bakers' supplies, 204 Florida st., were driven out at 10:15 a. m. Friday by a fire, the loss on which may run as high as $25,000, according to members of the firm. Seven of the employes are women.

The fire started around a sugar pulverizing machine and was caused by the presence of a nail or some other metallic substance in the sugar going through the hopper. When this struck the steel grinders, it set up a spark that fired the sugar dust.

The burning sugar set up a nauseating smoke which drove everyone from the building. Firemen who took the first hose lines into the place had to don smoke masks.

The fire was confined to the sugar room, but the loss was high because the $100,000 stock of foodstuffs is highly susceptible to smoke damage.

A telephone alarm was followed immediately on the arrival of the third battalion chief by an alarm for additional apparatus and another special call for a fire patrol.

There are better and less costly ways of getting front page attention in the daily press than this. Yet every food process plant, without magnetic separator protection, is a possible subject for such a story.

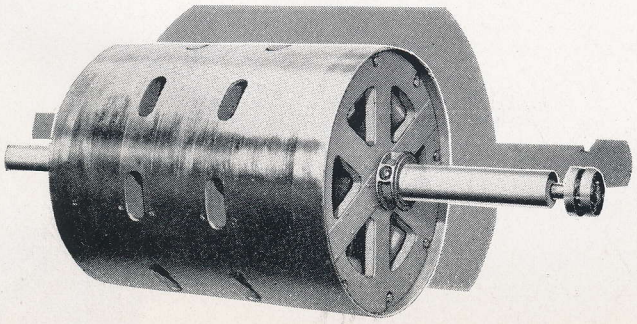
Disastrous dust explosion is too frequently the result of unchecked tramp iron. A stray nail or bolt is often the simple cause of great tragedy and grave loss. And aside from the constant menace of dust explosion such iron may work serious havoc to intricate process machinery or prove a troublesome and embarrassing impurity in finished product.

Tramp iron and its attendant dangers can be positively avoided with magnetic separation equipment properly applied. Consult us—what is a serious and insurmountable problem for you may be routine procedure for us, with thirty years' experience designing, building and applying magnetic equipment for this and other purposes.

MAGNETIC MANUFACTURING COMPANY

623 South 28th Street, MILWAUKEE, WISCONSIN

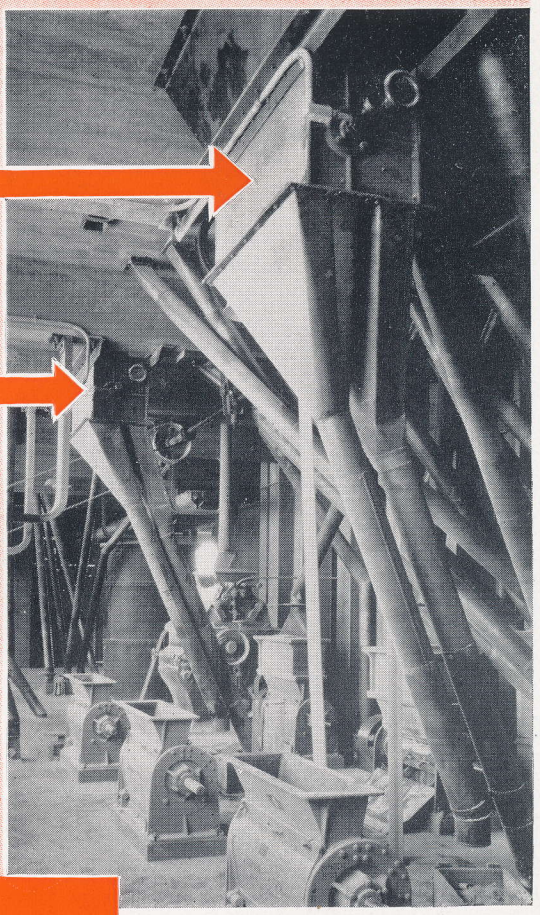
Representatives in Principal Cities



HIGH STEARNS DUTY MAGNETIC EQUIPMENT

TRAMP IRON

Stops *right* Here

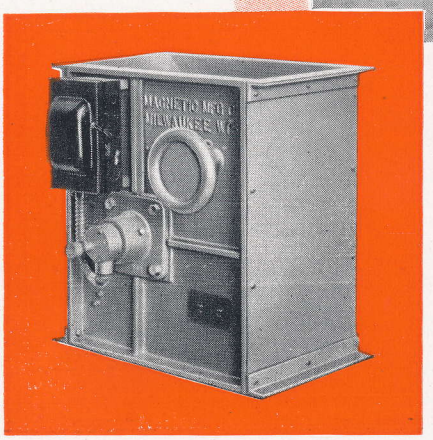


Nails, bolts, nuts, razor blades, loose tools—all these mighty tramp iron engines of destruction are stopped by Stearns Magnetic Separators before they reach the danger-zone. No form of tramp iron can pass the Stearns Magnet—to cause disastrous dust explosions, damage costly machinery, or impair the product.

The two Stearns High Duty Magnetic Separators at the right are part of a group of seven recently installed at a leading Feed Mill. They are installed directly on the feed spouts and provide automatic continuous separation of tramp iron from grain as it passes through the spout. Stearns High Duty were selected after several tests of many separators.

Write for Bulletin No. 90 fully descriptive of these and other Stearns Magnetic Separators for flour, feed, and cereal mills.

MAGNETIC MFG. COMPANY
621 S. 28th Street Milwaukee, Wis.



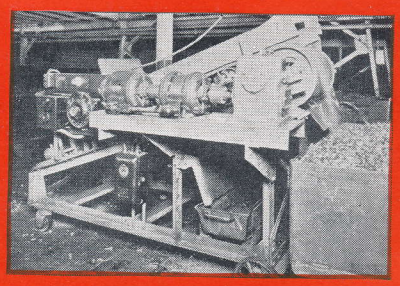
Stearns High Duty Spout Separator—Type LS. Built complete for direct attachment to spout Fully enclosed, dust-tight, all metal construction. Feeds magnetically, separates and discharges tramp iron automatically. Fast, positive, continuous operation and separation. Write for descriptive book.

Stearns High Duty Magnetic Equipment comprises:

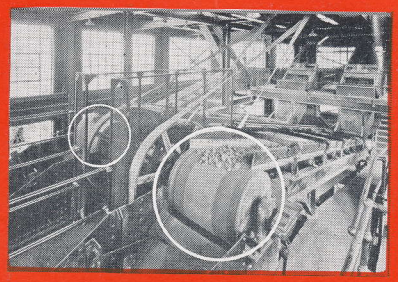
- Magnetic Separators, Pulley and Suspension Type
- Magnetic Clutches, for all transmission services
- Magnetic Conveying Equipment
- Magnetic Separators for Grain, Food Products, Fertilizer, Feed and Special Services

HIGH STEARNS DUTY
MAGNETIC EQUIPMENT

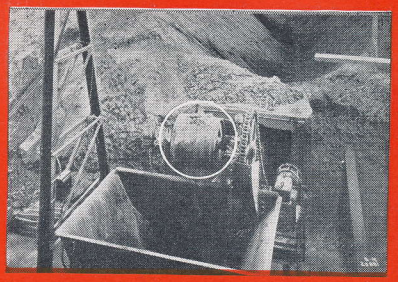
An increasingly important factor in the Basic Industries . . .



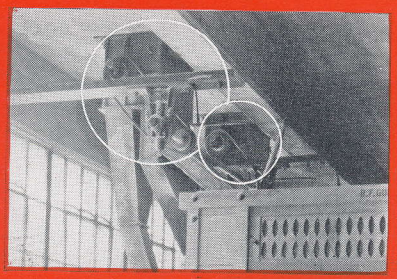
Metal Working: Brass in the tremendous amount of a million lbs. daily is reclaimed by this Stearns Separator in a large foundry.



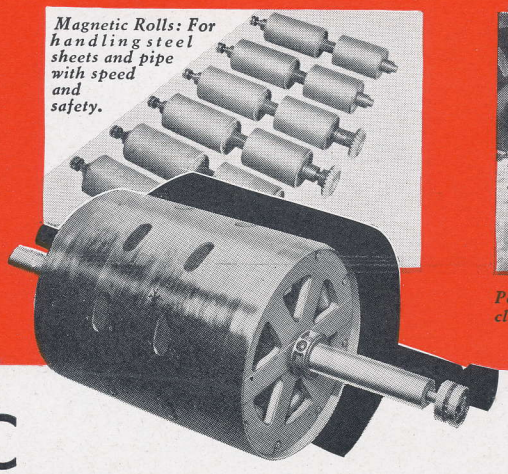
Mining: Cobbing and concentrating magnetite ore with Stearns Magnetic Equipment, — the largest installation of magnetic equipment in the world is in this plant.



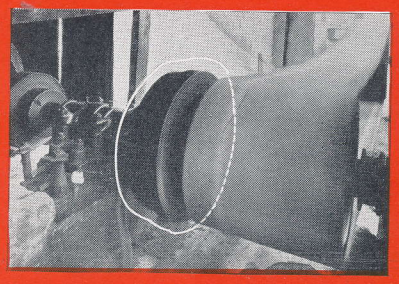
Process Industries: Removing tramp iron and other impurities from clay in large ceramic plant by Stearns Magnetic Pulley Separator.



Food Industries: Damaged machinery, impurities in finished product, dust explosion are eliminated by Stearns Magnetic Separators in this flour mill.



Magnetic Rolls: For handling steel sheets and pipe with speed and safety.



Power Transmission: by Stearns magnetic clutches is simple, sure and efficient. Installation above on large gyratory crusher.

MAGNETIC

Equipment for Protection . . . Purification . . . Concentration . . . Conveying . . . and Power Transmission Services

DURING the past 30 years, magnetic engineering has made striding progress. Beginning with simple suspension magnets and magnetic pulleys, used principally for removing stray bits of iron from raw materials, the science has arrived at a high degree of development. Magnetic machines have been developed for separation of materials ordinarily unresponsive to magnetic separation; such as ilmenite, wolframite, garnet, manganese and others. Magnetic rolls for handling steel pipe and sheets are another recent development. In power transmission the simplicity and ease of operation of magnetic clutches have resulted in their wide adoption . . . The field of application, too, has been extended from the industries such as mining, milling, metal refining and casting, who have long used magnetic equipment for protection of machinery and reclamation of materials, to ceramic plants, manufacturers of paper, rubber, food products, who require magnetic equipment to assure purity of product as well as for protection to valuable process equipment.

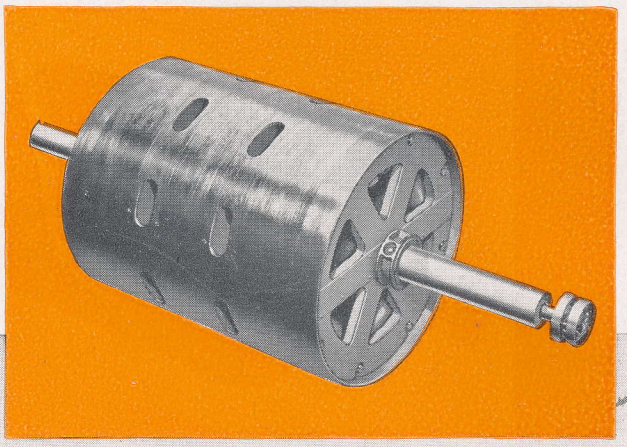
Magnetic Manufacturing Company engineers have contributed much to the present development and application of magnetic equipment. Their thirty years' of experience in the design and construction of such equipment are available to you, with complete laboratory facilities for special problems.

HIGH STEARNS DUTY
MAGNETIC EQUIPMENT

MAGNETIC MANUFACTURING COMPANY, 626 South 28th Street, Milwaukee, Wisconsin

Reprinted from Engineering and Mining Journal, November 10, 1930

A Carload, for International



ILLUSTRATED above is a carload of Stearns High Duty Pulley Separators destined for International Nickel Company, to be used for concentrating nickel ore.

Whether it's a single pulley separator, for simple protection or reclamation service, or a battery of magnetic concentrators, for ore processing, the widely varying characteristics and multiplicity of magnetic equipment available makes the advice of experienced magnetic engineers imperative.

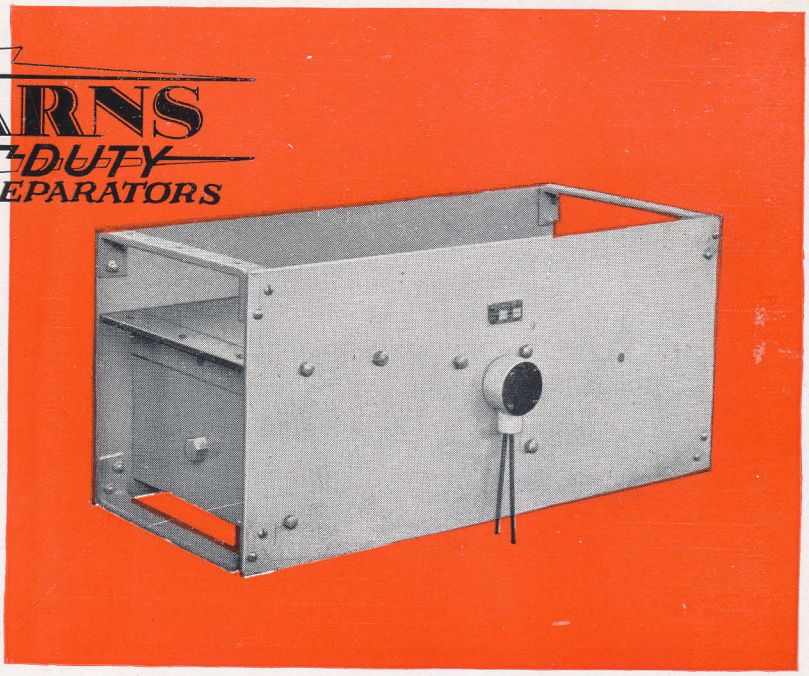
On any job of magnetic separation, Magnetic engineers are well qualified to serve you with thirty years' experience designing and building magnetic equipment: separators, conveyor magnets, magnetic drums, chutes, clutches, special magnetic apparatus. Write for informative bulletins.

MAGNETIC MANUFACTURING COMPANY
624 South 28th Street
Milwaukee, Wisconsin

HIGH STEARNS DUTY

MAGNETIC EQUIPMENT

HIGH
STEARNS
DUTY
MAGNETIC SEPARATORS



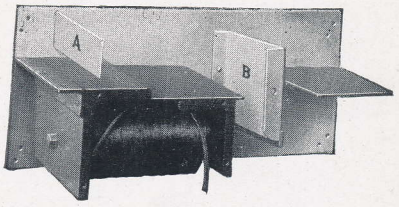
A SIMPLE COMPACT UNIT . . .

THAT PROVIDES FULL AND POSITIVE PROTECTION AGAINST THE DANGERS OF TRAMP IRON

Damaged grinding machinery, dangerous impurities in finished product, dust explosions—these are the possible results of tramp iron. Nails, bolts, nuts, razor blades, spikes and even large tools stray into raw material and are a constant source of danger. A tiny tack is often the cause of dust explosion while a bolt may work serious havoc with costly grinding machinery. Large mills protect themselves with adequate magnetic separation equipment, but small feed mills find such equipment prohibitive in cost and sometimes difficult to install.

The Stearns High Duty Type GS Spout Separator illustrated above provides full and positive magnetic protection at low cost. The complete device is attached directly in the spout and when tramp iron has collected in sufficient quantity, it is released by cutting off the current, which automatically opens a trap door in the separator and discharges the collected tramp iron. This is a practical safety feature, as failure of the electric current automatically springs the trap, dropping tramp iron and preventing its dispersal into the grain.

The Type GS Separator is a complete self contained unit, all metal construction and fully enclosed. Its cost puts it well within reach of every mill. Get the complete facts; return the coupon below.



Open view of Type GS Stearns High Duty Magnetic Spout Separator showing magnetically operated baffle plate (A), magnet construction and automatically operating tramp iron trap (B), open for iron discharge. Baffle plate is kept in vertical position by magnetic attraction and serves to spread grain evenly over magnetized surface of tramp iron trap gate.

MAGNETIC MFG. COMPANY

630 South 28th Street — Milwaukee, Wisc.

Write for this valuable information on Magnetic equipment for flour, feed and cereal mills.

Please send me, without obligation, Bulletin No. 90 and complete facts on Type GS Magnetic Separator.

Name .....

Company .....

Width of Spout .....

Capacity .....

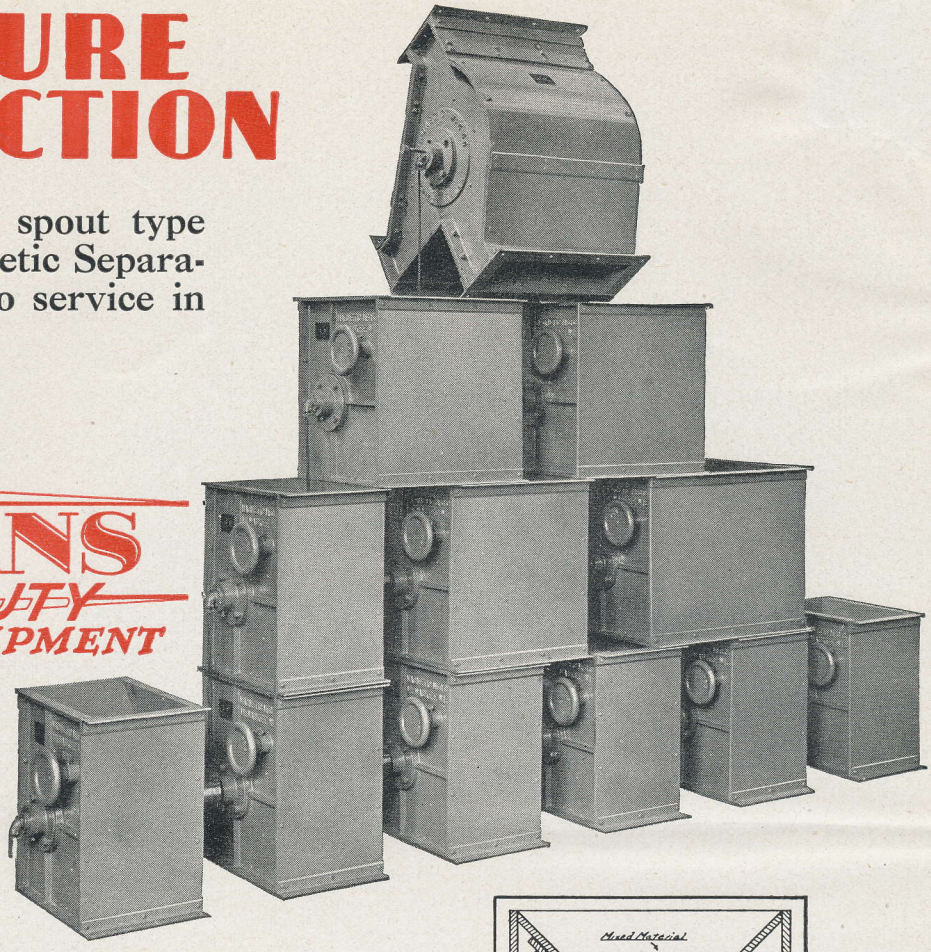
Kind of Material .....

Electric Current Available .....

Address ..... City ..... State .....

To ASSURE PROTECTION

These twelve spout type Stearns Magnetic Separators going into service in large mill.



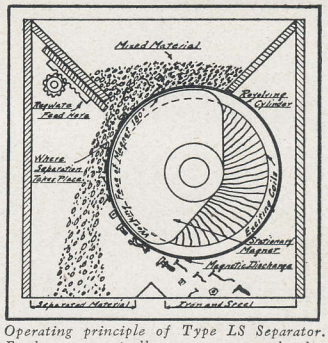
HIGH STEARNS DUTY MAGNETIC EQUIPMENT

TO assure iron free finished product and to protect costly milling machinery against the ever-present menace of tramp iron in raw grain these twelve Stearns High Duty Magnetic Separators are going into service in the feed mill of a large, nationally known cereal manufacturer (name on request).

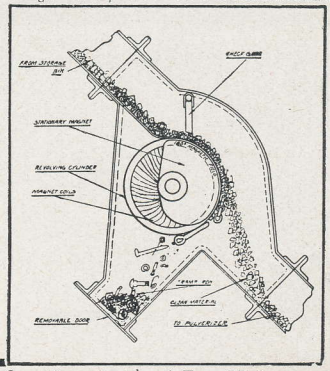
This is perhaps the largest order ever placed at one time for equipment of this nature. It consists of eleven Type LS Stearns High Duty Magnetic Separators and one Type LP Stearns High Duty Magnetic Separator. These separators are installed directly on the feed spouts and provide *automatic* and continuous separation of tramp iron from the grain as it passes through the spout. These twelve separators are the result of a previous single Stearns installation. After severe test of the Stearns Separator and comparison with several other makes in actual service, Stearns High Duty was chosen by the manufacturer as the most efficient.

Write for Bulletin No. 90 fully descriptive of these and other Stearns Magnetic Separators for flour, feed, and cereal mills.

Magnetic Mfg. Company, 281 23rd Avenue, Milwaukee, Wis.



Operating principle of Type LS Separator. Feeds, magnetically separates and discharges tramp iron AUTOMATICALLY.



Operating principle of Type LP Separator. AUTOMATIC and continues separation of tramp iron.

MAGNETIC MFG. CO., 281 23rd Avenue, Milwaukee, Wisconsin

Please send me, without obligation, Bulletin No. 90 and complete facts on Type LS and LP Separators.

Name .....

Company .....

Width of Spout..... Capacity .....

Kind of Material..... Electric Current .....

Address .....

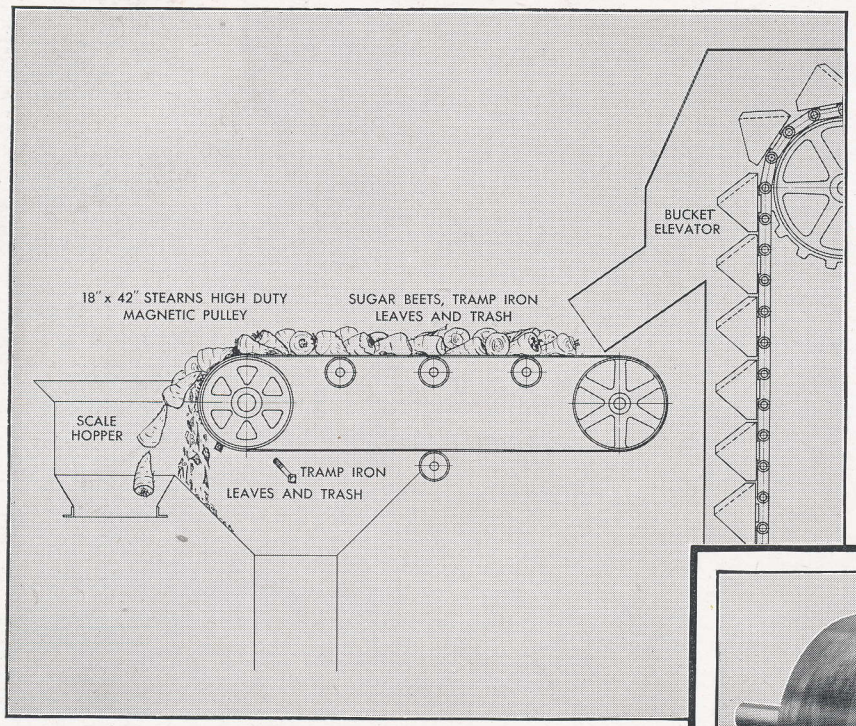
City .....

State .....

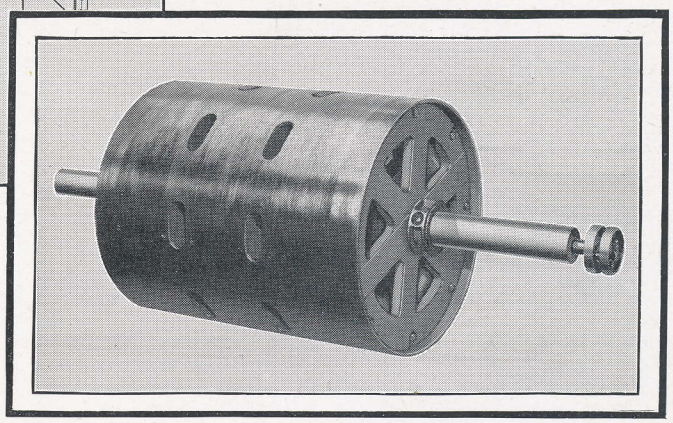
Write for this valuable bulletin on magnetic separation equipment for flour, feed and cereal mills.

Reprinted from June, 1930, Issue of National Miller

Many Advantages *from* Magnetic Separators



. . . Master Mechanic of Large Sugar Corporation Reports Knife Trouble Practically Eliminated.



A LARGE western beet sugar refiner installed a Stearns High Duty Magnetic Pulley Separator to protect slicing equipment against the dangers of tramp iron. The Pulley Separator has been in service for several years and the Master Mechanic recently took occasion to report to us the many advantages derived from the magnetic separator, besides its original purpose of protection.

The Stearns Pulley Separator (18 x 42 inches) is installed at the discharge end of a conveyor belt, as shown in the diagram illustration. 50 to 60 tons of beets per hour are handled with this equipment. From one to one and one-half tons of straw, leaves, and trash intermingled with metallic junk, bolts, bits of wire, tin cans, nails, are removed from the raw beets every hour. The removal of the straw and trash can be attributed in a measure to the magnetic separator pulley. The weight of the attracted metallic junk tends to hold the trash close to the conveyor belt at the discharge end and carry it beyond the beet discharge point.

These advantages are incidental, however, to the fact that the magnetic separator pulley provides full and positive protection to the slicing knives; the frequent knife trouble previously experienced being practically eliminated. The Master Mechanic reports a run of full 42 hours without changing a single knife. An additional advantage is the increase in number of knives made possible by the magnetic separator, 40 division knives are used with resulting increase in sugar extraction, whereas without a magnetic separator the knives must be spaced much farther apart for their own protection.

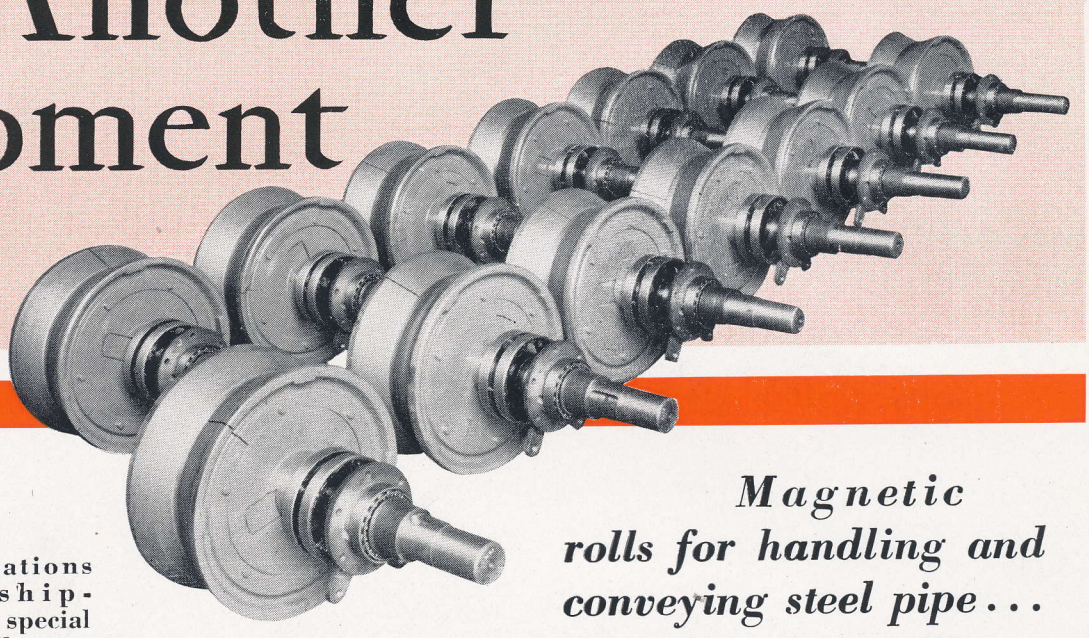
This installation (name on request) is just another instance of the value of Stearns Magnetic Separators for food and process manufacturers who want iron-free, raw and finished material and protection to costly process machinery against the constant menace of tramp iron.

Write us as to the possibilities of magnetic separation as applied to your product.

Magnetic Mfg. Co. 284-23rd Ave. Milwaukee, Wis.

HIGH
STEARNS
DUTY
MAGNETIC SEPARATORS

Another Shipment



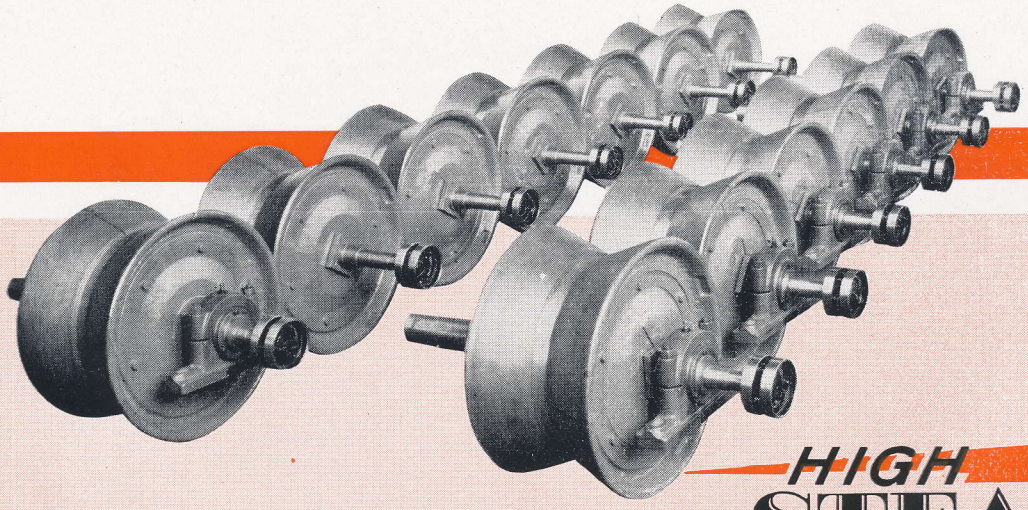
Magnetic rolls for handling and conveying steel pipe . . .

THE illustrations show two shipments of special magnetic rolls comprising a total of twenty-eight 15 inch diameter and thirteen 18 inch diameter rolls, developed for a large producer of pipe and conduit. Steel pipe in lengths of 18 to 22 feet and diameters ranging from ½ to 18 inches are conveyed by means of these magnetized rolls, concaved to fit the pipe. The rolls must have sufficient magnetic strength to hold the pipe while it is being cleaned and processed and in addition they serve as a roller conveyor, moving the pipe up an inclined plane against gravity.

This unique magnetic handling equipment was developed and perfected by the Magnetic Mfg. Company in cooperation with the pipe manufacturer. It is another instance of the complete magnetic engineering and equipment service offered by this company.

If it's a problem in magnetic equipment, magnetic separators, magnetic processing, magnetic clutches, consult us . . . thirty years' experience.

MAGNETIC MANUFACTURING COMPANY
621 S. 28th Street Milwaukee. Wis.



HIGH STEARNS DUTY

MAGNETIC EQUIPMENT

specification sheet 1102
(bulletin 604-F)

Stearns magnetic

style "UH" magnetic disc brake

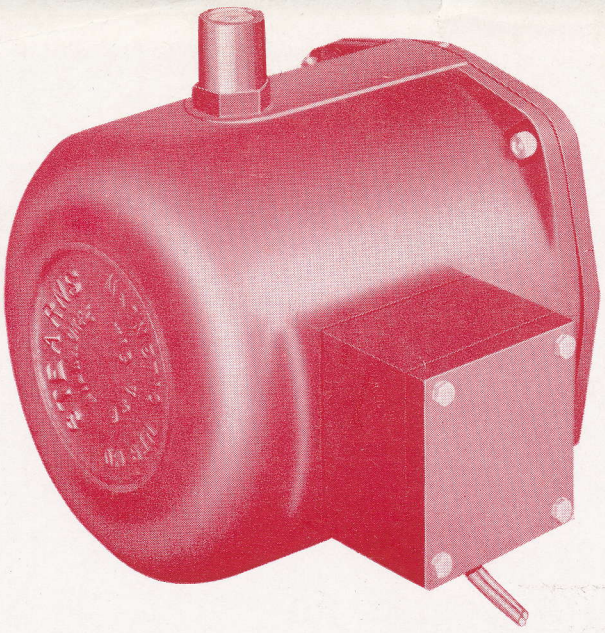
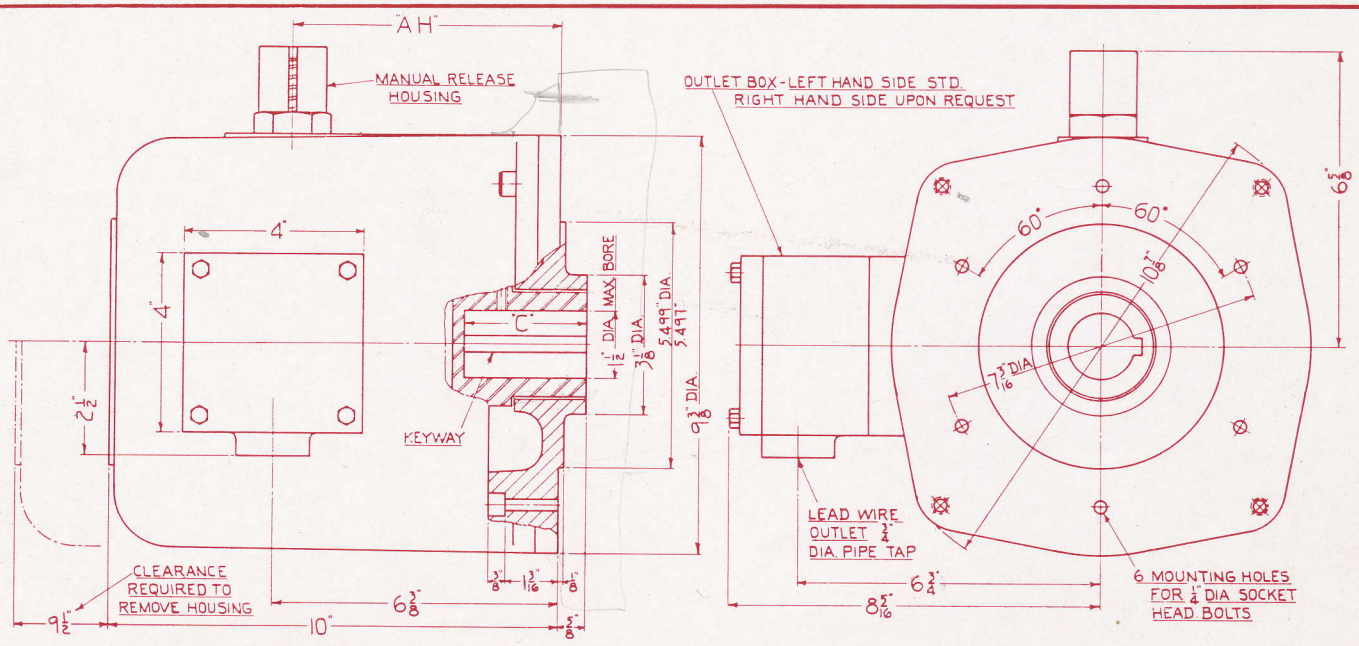


Fig. 886

These brakes are for mounting as an integral part of electric motors listed for use in Class I, Group D, hazardous locations, when the acceptability of the combination has been determined by Underwriters' Laboratories, Inc. The explosion proof assembly of the brake is completed by the assembly of the brake to the motor.



This illustration should be used for dimension and data purposes only, not for construction details.

Fig. D-228-N

SPECIFICATIONS:

Size	Max. Torque in Lbs. Ft.	Dimensions in Inches		Weight in Lbs.	
		C	AH	Net	Boxed
82	3	2 1/4	5 1/2	92	99
82-A	10				
82-B	25			94	101
84-B	50	2 3/4	6	98	105
86-B	75	3 1/4	6 1/2	102	109

NOTES: 1. Brakes are spring set and electrically released.

2. Max. Torque ratings are for alternating current and direct current brakes.

DATA REQUIRED FOR QUOTATIONS AND ORDERS:

Volts ..... A.C.

Volts ..... D.C.

Cycles 60 ☐ 50 ☐ 25 ☐

Others.....

Lead Wire Connections

Left Hand ☐ Std. Form 14E

Right Hand ☐ Opp. Std. Form 15E

Customers Ord. No. .....

Our Order No. .....

Bore .....

Keyway ..... X .....

Mounting: Horizontal ☐ Std.

Vertical ☐ Top of Motor

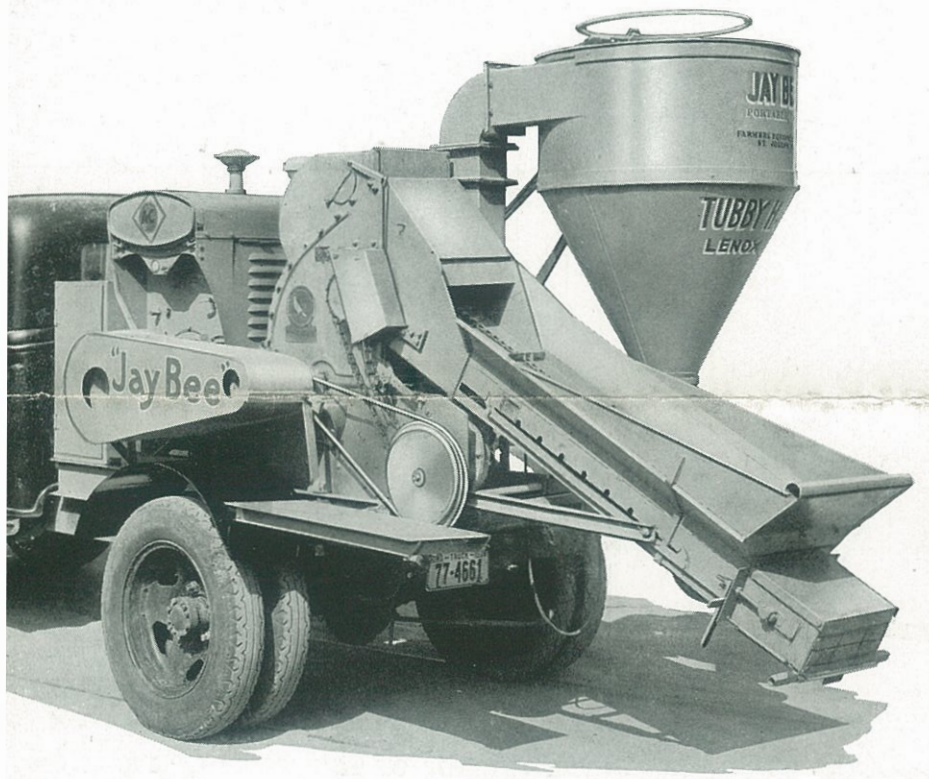
☐ Bottom of Motor

Date .....

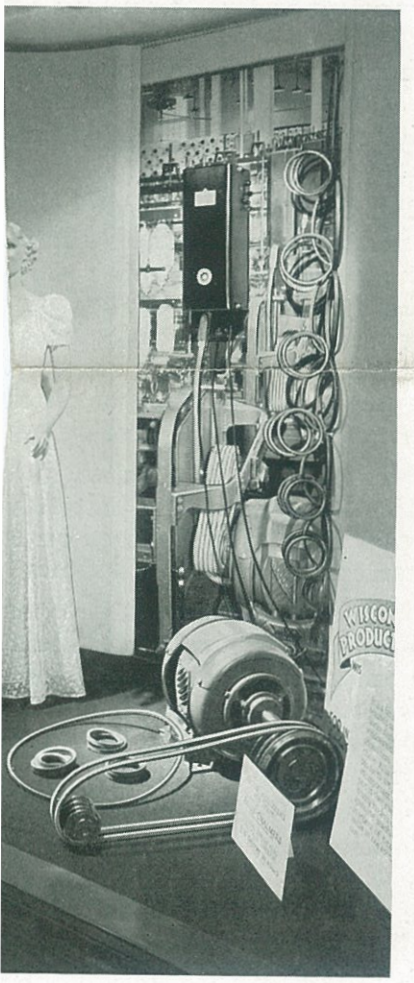
Certified By .....

STEARNS MAGNETIC, INC.
MILWAUKEE 46, WISCONSIN

TEX ROPE TOPICS OCT 39



DOOR STOP GRINDING SERVICE
s farmers to prepare feed right on . . . eliminates transportation . . . lling. Equipment consists of a port-ner mill — Allis-Chalmers Industrial ngine, Texrope Drives, and a Jay Bee Hammer Mill assembled on a truck chassis by the Farmers Equipment Company. Thus, Texrope, too, proves itself a part of the Allis-Chalmers extensive line of machinery for the farmer — tractors, plows, combines — everything to make a farm more profitable.

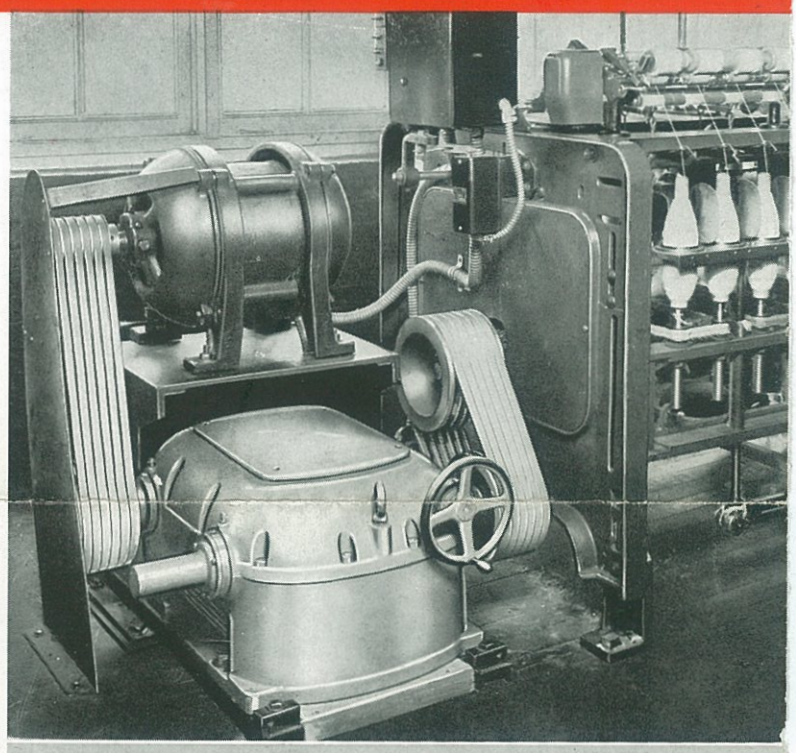


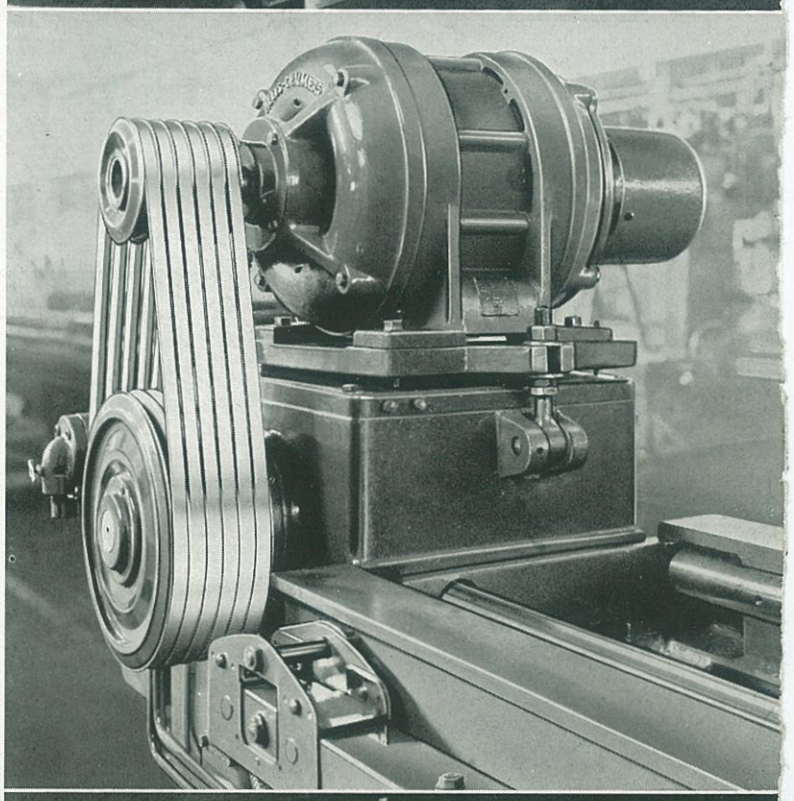
UPPER RIGHT — SPINDLE SPEEDS RANGing from 2200 to 6500 rpm — that's fast — yarn speeds up to 90 miles an hour. The operators of these spinning frames find that the new Vari-Pitch Speed Changer permits them to run different types and weights of yarns at peak efficiency producing a finer yarn.

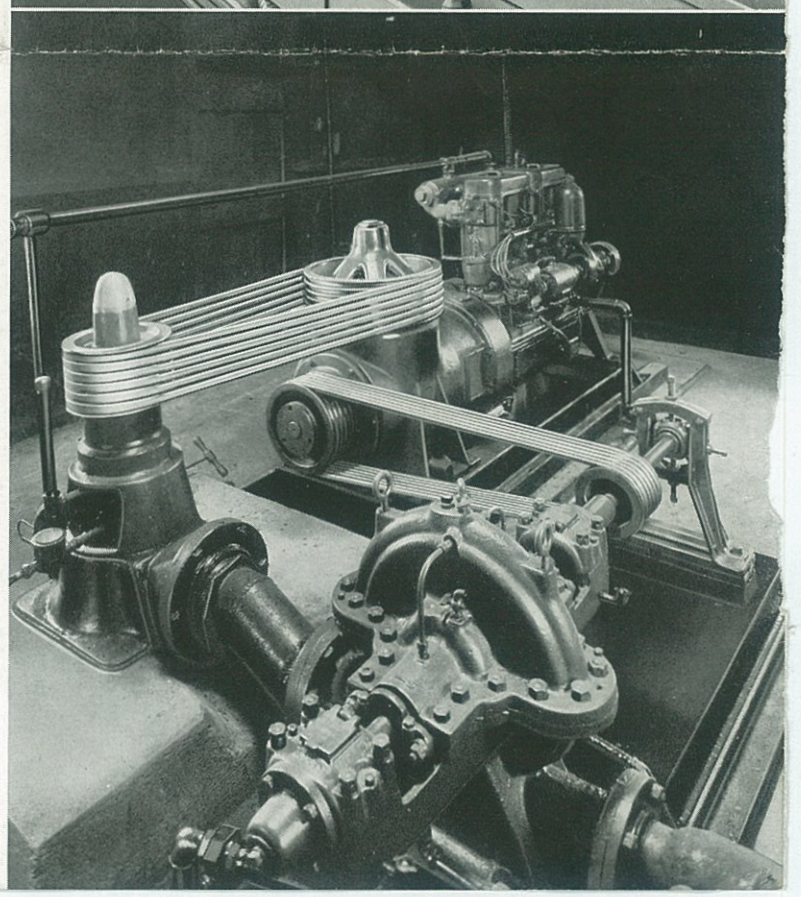
RIGHT CENTER — REDUCING FLYWHEEL effect to a minimum, lightweight Duro-Brace Texsteel Sheaves are applied by the Barnes Drill Company of Rockford, Illinois, to their No. 6 Horizontal External Honing machine. On this machine, piston rods, shafting, boring bars are honed and lapped to mirror finish.

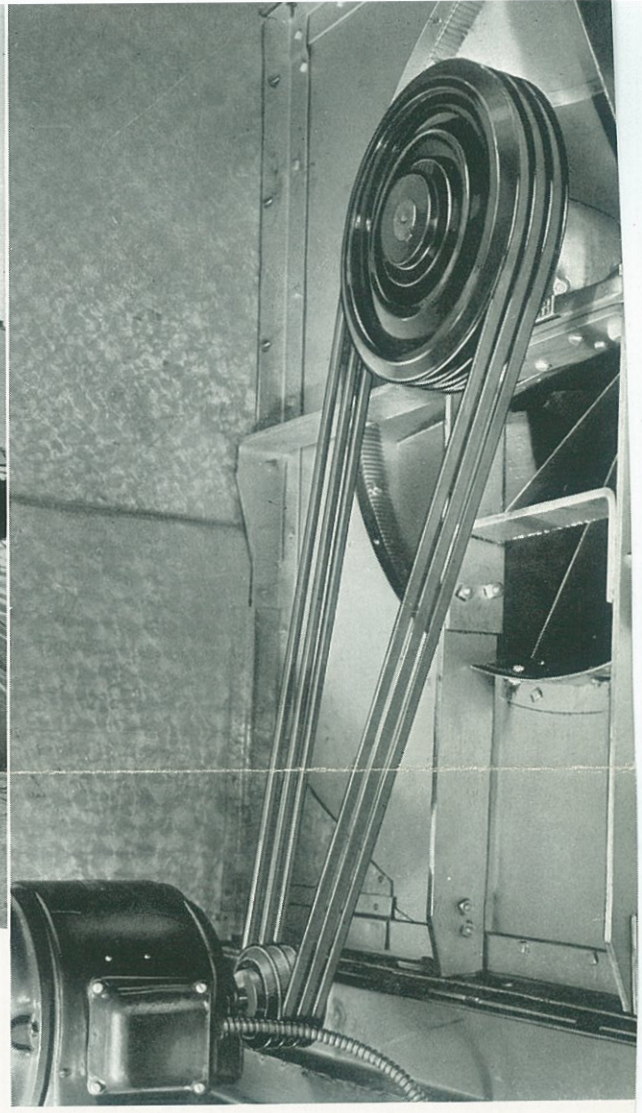
LOWER RIGHT — AN ADEQUATE SUPPLY of good water at the desired pressure — that's what this practical Texrope Drive installation gives to the owner of a large Texas ranch. A gasoline engine operates a deepwell turbine type pump and a centrifugal booster pump . . . with Texrope transmitting the power.

LEFT — SEX APPEAL AND THE MACHINery that makes it possible — that's the logical combination displayed in this Milwaukee women's apparel shop during Wisconsin Products Week. And it's logical because Allis-Chalmers Quick-Clean Motors, Texrope Drives and Control Equipment play a vital part in the manufacture of summery cotton fabrics, in scores of large textile mills in the south and east.



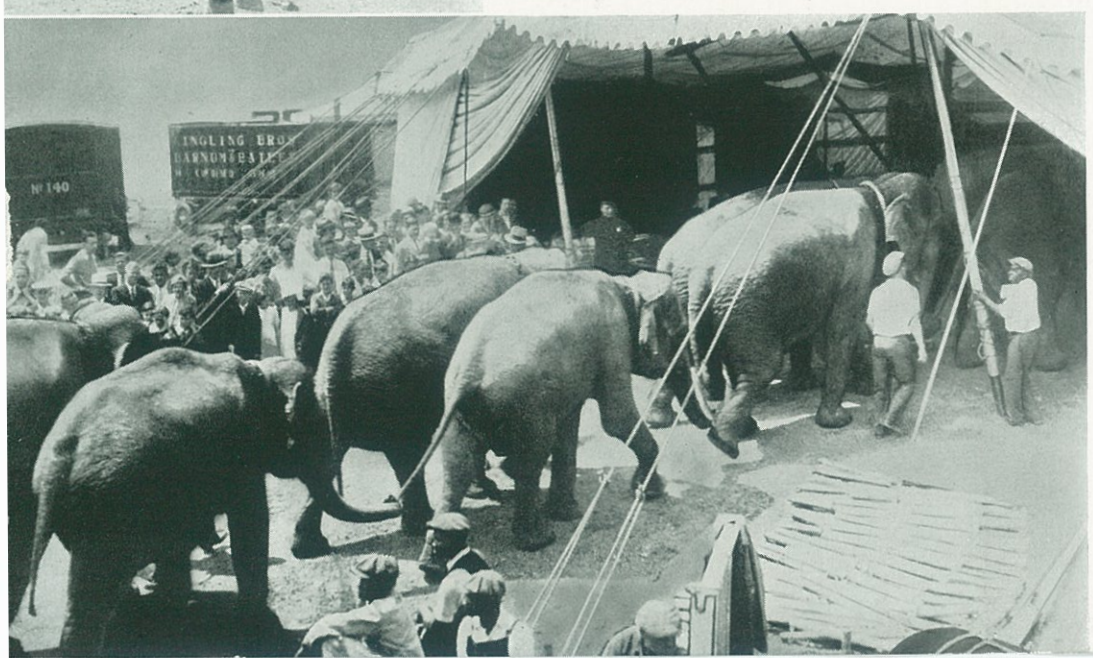






THE *Big Top* 100% AIR CONDITIONED USING TEXROPE DRI

OVER THE TOP OF THE "BIG TOP" EIGHT UNITS
driven by Texropes and Duro-Brace Sheaves deliver cool a
day circus crowds. The system requires 80 to 120 tons o
(2 performances) . . . is quickly converted to heating



No more will circus-goers have to sit in th
ing heat under the "big top," with the afte
beating mercilessly down, making it a pla
gent animal smells. For air-conditioning h
the circus!

Ringling Brothers and Barnum & Bailey r
conditioning" as a definitely valuable
attraction. It is featured on their billboard
draw in patrons.

The system, first of its kind . . . cost $80,0
specially designed and built by the Buffalo
pany. Speaking of the eight trailer unit
to make up the system, J. J. O'Shea of
Forge Company says they are subjected to
toughest services to which any air-conditio
ment can be put. They must be portable,
enough to withstand continual travel.

"For this reason," Mr. O'Shea states, "we
these units with Allis-Chalmers V-belt driv
mit the motor power to the fan, based on ou
successful experience with Allis-Chalmers

Circus patrons, it seems, like the new cooli
The chief and only serious criticism comes
cus people themselves — those pink-tight
who fly through the air far overhead. Th
cool, conditioned air down below forces an
amount of sultry heat to the top where t
But progress must go on . . .

COVER SUBJECT FOR THIS ISSUE OF TOPICS IS
the Great, Ringling Brothers' terrifying monster gorilla. A
ing of his 10-ton cage preceded by a year conditioning of