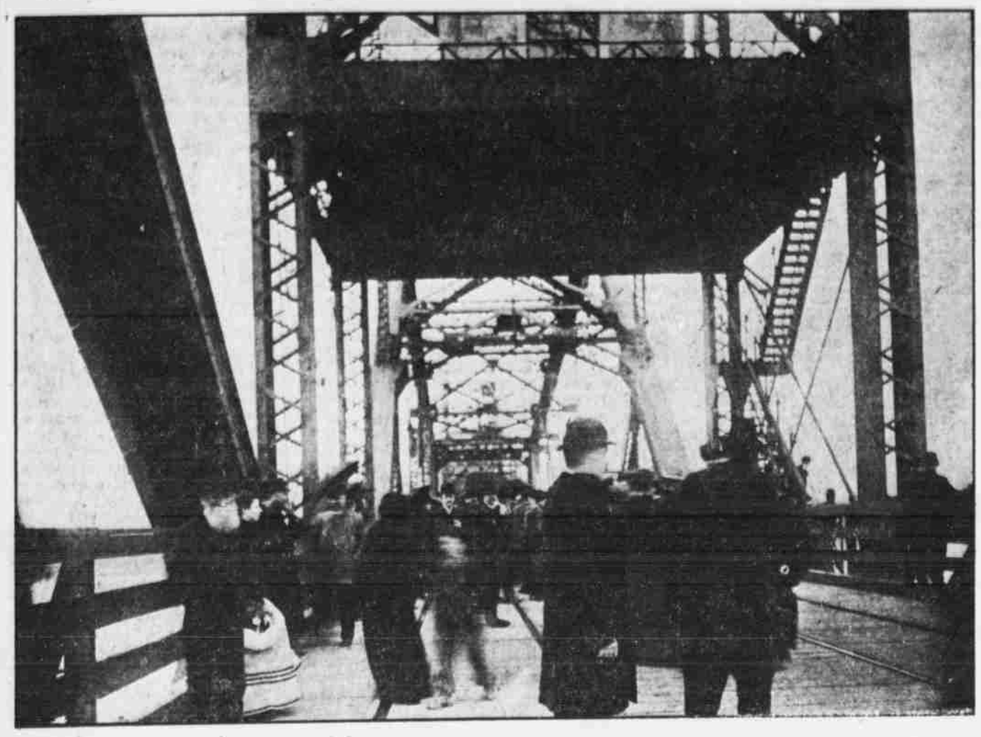
Opening the New Illinois Central Steel Draw Bridge at East Omaha



VIEW ON THE BRIDGE FROM THE WEST END.

ONE more permanent viaduct over the Missouri river was formally dedicated to commerce on Saturday, March 18. The ceremonies were of the simplest sort, owing to the rain, that prevented much movement outside the special train that took the railroad officials and guests to the bridge. The visit was merely a form, for the bridge has been in actual service for several years, and although the western half was completed but a few months ago, it has had all the essentials of permanency.

The East Omaha bridge is in many respects a very notable structure. Both the design and the construction present more interesting features of bridge engineering than are often found in connection with a single bridge.

There are at present three bridges over the Missouri river in the vicinity of Omaha. The Union Pacific Railway company's bridge, located near the central portion of the city, provides for a double-track railway between the trusses and for highway and pedestrian travel on cantilever brackets outside. The Omaha & Council Bluffs Street Railway company's bridge, located about two-thirds of a mile above the Union Pacific bridge, provides for double-track street railway, highway and pedestrian traffic. During the latter part of the year 1890 the proposition to build a third bridge, now known as the East Omaha bridge, was taken up by Arthur S. Potter of Omaha. The first plan was to build a single-track railway bridge, with highways and cantilever brackets outside the trusses and with sidewalks just inside, but it was afterward decided to build a double-track railway structure, providing for the addition later of cantilever brackets supporting highway, motorway and sidewalk floors outside the trusses. During the earlier stages of its development the structure was designated as the interstate bridge, and the Interstate Bridge and Street Railway company was incorporated to construct and operate it. The location finally selected for the crossing is about two and one-half miles above the Omaha & Council Bluffs Street Railway bridge near the settlement known as East Omaha.

Four Types Suggested.

At the outset J. A. L. Waddell, chief engineer of Kansas City, Mo., was retained by the Interstate Bridge and Street Railway company as chief engineer, to design and supervise the construction of the proposed bridge. The first work of the engineer consisted of an examination of the crossing and a report upon the probable costs of four different types of bridge, as follows:

1. A structure with a single-track railway and a highway between the trusses; estimated cost, $765,000.
2. A structure with a single railway track and two-foot walks inside the trusses and roadways and motorways on cantilever brackets outside of trusses; estimated cost, $870,000.
3. A structure with a single railway track and two-foot walks inside the trusses, roadways and cantilever brackets outside the trusses, at the same elevation as the railway tracks, and motorways on brackets outside of trusses above the roadways; estimated cost, $960,000.
4. A structure with double-track railway inside of trusses, with roadways and narrow sidewalks outside of trusses, at same elevation as railway, and with motorways above the roadways and sidewalks; estimated cost, $1,225,000.

A structure of type No. 4 was finally adopted, except that the motor tracks were placed on the roadway floor, but it was decided that the cantilevers should not be put in place until the demands of traffic required them. The space between trusses, however, was floored over to provide for highway and motor traffic. All parts of the structure which would be affected by these additional loads were designed to take care of them.

In December, 1890, surveys and soundings were made in the vicinity of the bridge site and borings were made at the crossing to determine the depth of bedrock. From the data thus secured the bridge was designed.

Provision was made for a system of dykes and shore protection work to reduce the width between shore lines from 1,550 feet to about 1,050 feet. The structure, as designed and approved by the War department, was to consist of one 520-foot draw span, one 560-foot fixed span, one 240-foot fixed span, and about 200 feet of timber trestle.

Building to Meet Funds.

Plans were prepared on this basis, but as this was an independent enterprise, having no affiliation with any railroad or other corporation, it was at last found impracticable to raise the amount of money required to carry out this scheme. Then arose the problem of what plan could be carried out with the money available, which would take care of the traffic temporarily and would at the same time permit the consummation of the adopted plan, with the least possible loss in the future, when the requirements of traffic would demand it, and when the necessary capital could be secured.

The resourcefulness of the chief engineer proved equal to the emergency, and he proposed the plan of building the draw span, as outlined, and substituting temporary single track spans for the remainder of the structure.

The superstructure was to consist of one 520-foot double track, steel draw span; three 192-foot single track, combination wood and iron spans, and 510 feet of single track timber trestle; one railway track and one motor track, spaced about four feet, center to center, to be laid across the structure, and the entire space between trusses to be floored for highway traffic. The substructure was to consist of one permanent pivot pier, sunk to the bedrock, and five temporary pile piers.

This structure could be completed for the money available. The plans were adopted by the company and were approved by the War department, and the contracts for the entire construction were awarded in August and September, 1892.

Bold Plan Successful.

The idea of using pile piers in the channel of the Missouri river at this location was certainly a very bold one, but the fact that the piers have withstood successfully the high waters of twelve years demonstrates more forcibly than words the feasibility of the plan and the carefulness and thoroughness of their designing and construction.

In order to permit of the construction of the permanent bridge at some later time, without either hampering the new work or interfering in any way with the traffic, the temporary structure was built on a tangent, making an angle of 10 degrees and 53 minutes with the tangent of the proposed permanent structure, the two tangents intersecting on the axis of the pivot pier of the draw span. This arrangement permitted the permanent draw span to be used with the temporary structure and to become a part of the permanent structure when revolved into line with the final tangent.

The new part of the permanent structure was located as originally planned and was completed without the slightest interference with traffic. When the new part was finished and ready for use, the old draw was turned onto the new tangent, and the new and finished structure went into actual service without a single train being delayed.

Construction of Original Bridge.

The 192-foot combination wood and iron spans were designed for much lighter loads than they have since had to carry, but they have given very satisfactory service.

The 520-foot draw span was designed to carry a double track railway inside the trusses, and roadways, motorways and sidewalks outside the trusses. The length of span, center to center of end bearings is 520 feet. The length of the center panel is thirty feet, and each arm is divided into seven equal panels of thirty-five feet each. The height of trusses at the outer hips is thirty-five feet, at the inner hips sixty feet and at the towers ninety-five feet. This span and the new one of the same length are the longest draw spans ever built, and among the heaviest. The total weight on the rollers of the old draw span is about 3,150 tons. The span turns on forty-four conical rollers, one of which when tested supported a load of 625 tons without failure or permanent distortion.

Machinery was provided for operating the span by hand power or by electric motors, either of which may be used independently of the other. For the hand-turning machinery heavy levers or keys were provided, which are attached to capstans at the center of span. It requires about sixteen men to raise or lower the ends, or to turn the draw under ordinary conditions, and more when there is an unbalanced wind load acting against the span.

The substructure as constructed for the original bridge consisted of one permanent pivot pier for the draw span and five temporary pile piers.

Sinking the Center Pier.

The extremely heavy weight to be supported by the pivot pier made it necessary to carry the foundation down to rock, which lies at a depth of nearly 120 feet below extreme low water. This great depth made it impracticable to use the pneumatic process for sinking, consequently a foundation to be sunk by open dredging was designed.

The base was constructed of two steel shells, the outer one of which was forty feet and the inner one twenty feet in diameter. A cutting edge was formed by flaring out the inner shell to meet the outer shell, and riveting heavy web-diaphragms between them.

A number of three-inch jet pipes, with the nozzles so arranged as to discharge just inside the cutting edge, were carried up through the concrete as the work progressed. The object of these jets was to assist in drawing in the material from under the cutting edge, and they proved a valuable aid in sinking the caisson.

The bottom portion of this steel cylinder was riveted up on shore and a false bottom of timber was put in so that the caisson would float when launched. A channel had to be cut in the ice in order to float the caisson to the pier site. Then the ice on the down stream side was cut to fit the cylinder, and no other guide was needed during the sinking.

The material through which this pier was sunk was chiefly sand, but there were some pockets of fine gravel. Just overlying the bedrock some large boulders were encountered. Two logs were encountered in sinking, one of which caused a great deal of trouble, as it extended out under the cutting edge and threw the caisson out of position. After working at it for thirty-six hours the orange-peel dredge got a good hold on it and broke it off at the cutting edge.

Difficulties in the Way.

The excavation was all done through the center well. A large clam-shell dredge was used for the soft materials and when hard materials were encountered the orange-peel dredge was used. For the first sixty feet of sinking air syphons were also employed in the excavation and did very good work, but below that depth they became useless, for they would clog up at the intake and then discharge nothing but water.

Concrete was deposited in the annular space between the two shells as the sinking progressed and as rapidly as necessary to keep the concrete work above the surface of the water or to give sufficient weight for sinking. Timber struts and tie rods were used to brace the two shells together as the succeeding sections of metal were riveted up. The tie rods were left permanently in the work, but the timber struts were removed as the concrete was placed.

The sinking was continued as long as the dredges would bring up any material and then the caisson was settled still further by discharging three shots of dynamite in the bottom of the well. The first charge contained one-quarter pound and the second and third one-half pound each. These charges were lowered to the bottom, through the center of the well, and discharged electrically. The cutting edge finally rested on boulders at an elevation of 432.75 feet, or within about two feet and nine inches of the bedrock.

Sinking Was Successful.

The caisson was never more than five inches out of position and was finally landed within four inches of the correct location. When it showed a tendency to get out of position the dredges, or air syphons were worked as closely as practicable to the high side of the caisson and water was forced through the corresponding jet pipes provided around the cutting edge. To provide additional weight on the high side the concrete was stepped up on that side.

The sinking was remarkably successful, considering the great depth to which this foundation was carried.

The temporary piers were built of red cypress piles seventy feet long. Such long piles could not be driven in the ordinary manner, and accordingly they were put down by attaching to them jet pipes, through which water was pumped at such a heavy pressure that the material would literally be washed away from under the piles, thus allowing them to sink. This work was very successfully done under the direction of the late C. E. H. Campbell, civil engineer, of Council Bluffs.

Each pier was protected by a willow mattress, the piles being driven directly through it.

New Portion of the Bridge.

A controlling interest in the Omaha Bridge and Terminal Railway company was acquired a few years ago by the Illinois Central Railroad company.

The old temporary spans having been in place for about eight years, and as they were designed for a light loading compared with modern railway traffic, the Illinois Central railroad officials soon decided to have the permanent structure completed.

In May, 1901, Waddell & Hedrick, consulting engineers, were retained to make new surveys of the river in the vicinity of the bridge in order to determine the conditions as they then were.

Since the old draw span was built the channel had shifted to the other side of the river. For this and other reasons it was decided to build another draw span having the same general dimensions as the old one. However it was designed for a much heavier loading and differs from the old span in many details. It is very heavy, the total load on the rollers being nearly five thousand tons.

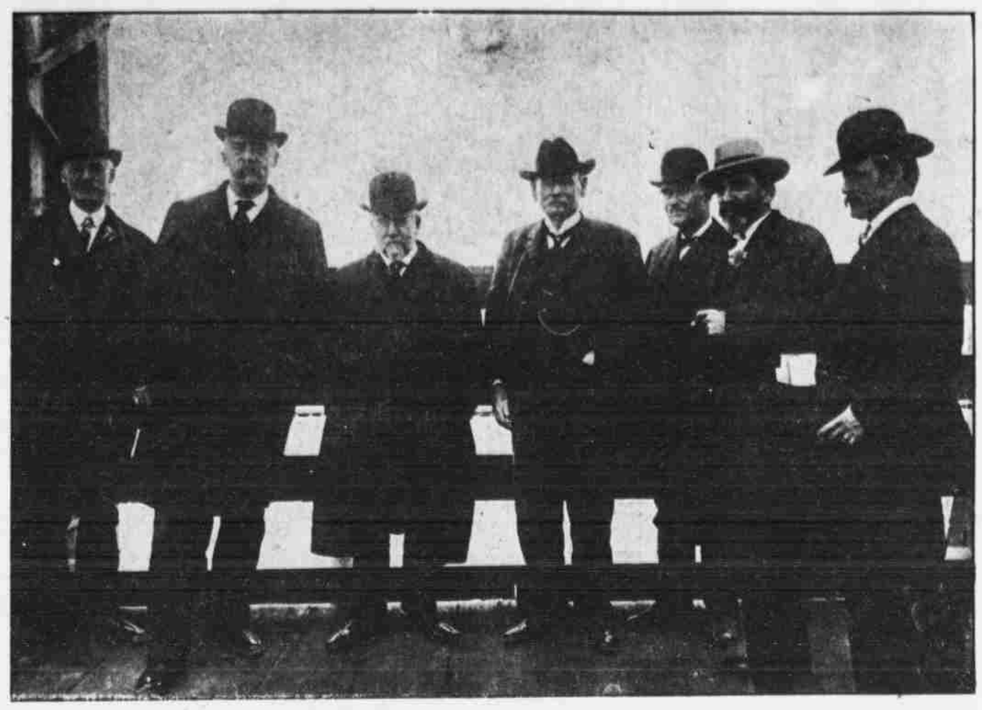
The rest of the new superstructure consisted of nine sixty-foot plate girder spans, eight on the west shore at the end of the new draw span and one on the east shore at the end of the old draw span. This makes the total length of the bridge about sixteen hundred and twenty feet.

The new substructure work involved the building of several different kinds of foundations. The pivot pier was an almost exact duplicate of the old one and was sunk in the same manner. The piers at either end of the new span were put down by the pneumatic process, while that at the east end of the old span was founded on piles, as were also the small piers and one of the abutments.

Much Trouble Here.

In sinking these piers many difficulties were encountered. The driving of the piles in the east shore pier proved a very difficult piece of work on account of the great length of the piles, they being eighty feet long. The average number of piles driven per day was only two and one-half. The pier between the two draw spans had to be sunk through the mattress and riprap that surrounded the old pile pier, and these obstructions caused much trouble. Much difficulty was experienced in keeping the caissons plumb and in correct position as they sank. In some cases it was necessary to pull the caisson back into place by putting an enormous strain on heavy cables fastened to the top. In sinking the cylinder for the pivot pier a mass of debris was encountered. A diver was sent down to remove this, but he could not do so and consequently an air-tight roof was put over the excavating shaft and the cylinder operated as a pneumatic caisson until the obstructions had been passed. After that the excavation was carried on with a clam-shell dredge and a hydraulic sand pump. This pier is the deepest ever sunk in the Missouri river.

The finished bridge is one of the finest in the country and all who took part in its design and construction may well be proud of it. The new draw span is equipped with the very latest and best electric and pneumatic machinery, and is so controlled by an electrical interlocking system that it is impossible to perform the various operations except in a certain sequence. Trains passing over the bridge are protected by an electrically operated semaphore signal system. The total cost of the completed bridge was about $1,000,000 over and above that of the temporary portion of the structure.



From left to Right—John R. Webster, Stuyvesant Fish, Charles F. Manderson, J. T. Harrahan, George W. Holdrege, George F. Bidwell, I. G. Rawn.
GROUP OF RAILROAD MEN WHO ATTENDED THE OPENING OF THE EAST OMAHA RAILROAD BRIDGE.

Finest Beef from Prize Winning Nebraska Steers

LOIN CUTS OF THE THREE STEERS, SHOWING PROPORTION OF LEAN TO FAT—CHALLENGER II ON THE RIGHT, STANTON IN THE MIDDLE AND THE MEDIUM GRADE STEER ON THE LEFT.

IN TEACHING the art of stock judging it is necessary to have models of animal form for purposes of illustration. In the University of Nebraska cattle judging begins by placing before students finished beef steers, possessing a conformation and quality which meet the requirements of the dressed beef market and certain other characters which indicate profitable growth to the feeder. In other words, the work begins by giving the student the proper conception of high quality in the finished product combined with thrift in the feed lot in order that he may have something tangible as a standard to strive for in his feeding and breeding operations. Such knowledge is fundamental to the producers of high-class sires as well as to the feeder of market stock. During the last four years the department of animal husbandry of the University of Nebraska has had each year two or three choice steers bred on the farm or purchased, when young, within the state. These steers are carefully fed for class room work and not for experimental data on the relative value of rations.

To give the general public, as well as matriculated students, an opportunity to see these specimens it has been the custom of the department to exhibit at the state and International Live Stock Show each year. That a fair degree of success has been reached in selecting and fitting such individuals it will not be out of place to state that, out of seven steers exhibited at the Chicago International Live Stock exposition during three years, six have been prize winners, varying from third in specials to the grand championship over all breeds, the whole amounting to $770 in prize money.

Nebraska Prize Winners.

At the last International show Challenger II, a full brother to the grand champion of 1903, and Stanton were exhibited. The former won first in Hereford special, second in the open class of 2-year-old grades and crossbreeds and third in the college special. Stanton won second in Hereford special for yearlings, fifth in the open class and second in college class. The former was bred by Mr. Murphy of Vesta, Neb., and the latter by the Stanton breeding farm, Madison, Neb. Challenger II weighed when purchased December 20, 1903, 1,000 pounds. The following October, ten months later, he weighed 1,800 pounds. Individual records on each steer were begun February, 1904, at which time Challenger II weighed 1,200 pounds and Stanton 960 pounds. During the twelve months following the former gained 780 pounds and the latter 500 pounds. The gain made by Challenger II was good for a 2-year-old, taking into consideration the fact it was made during the summer season after the steer had taken on considerable flesh and had received two or three setbacks by having been transported for exhibition purposes. Both would have shown larger average monthly gains had they not been held three months, after having become ripe, to be used in stock judging.

Challenger II gained well until he weighed 1,800 pounds, because he was larger in frame and on the later maturing order. Stanton was strictly a baby beef type, short, very compact, extremely broad on the back and naturally thick fleshed. He was a perfect box and completely finished at 1,200 pounds, when he would have topped any market. His propensity for getting fat rather than grow was such that it became necessary to feed him a ration almost devoid of corn. Had this not been done he would have been extremely patchy when shown at the International in December. He was then under size for age, but almost perfect in conformation. Stanton was of a type to make feeding beyond 1,200 pounds unprofitable, but up to this weight very profitable.

Challenger II consumed 7,261 pounds of grain from February 3, 1904, to February 3, 1905, the equivalent of 9.8 pounds of grain for one pound of increase in weight. Stanton consumed 4,990 pounds in that time, requiring 10.6 pounds of grain for each pound of gain. This shows that Stanton was placed at a greater disadvantage by virtue of being held over. He was eight months younger than Challenger, but matured four months earlier, making him mature one year younger. This was due in part to early feeding, but largely because of his more compact build.

Fat and Lean.

The illustration showing the rib and loin cuts of the two steers in comparison with a medium grade furnished by Swift and Company, South Omaha, brings out the fact already mentioned that Stanton was too fat, having a layer over the lean one and one-half inches thick, while Challenger, the larger steer, had but one inch. Nevertheless, Stanton showed a remarkably high percentage of high priced meat. Challenger II was somewhat lower, and the medium grade considerably below, as shown by its size in the illustration. The fat and lean in Challenger's carcass were perfectly mixed, giving the marbling sought for in dressed beef. The presence of the large flakes of fat in the lean made his meat tender, juicy, and at the same time less wasteful than though more fat had been distributed outside the lean. In the marbling the medium grade was deficient. The carcass demonstration was made in connection with a fine display of packing house products, prepared for the students of the University School of Agriculture through the courtesy of Swift & Company at South Omaha.

The live weight of Challenger II was 1,880 pounds and the dressed weight 1,245 pounds, which made a dressing percentage of 66.22. Stanton's live weight was 1,390 pounds and his dressed weight 942 pounds, making a dressing percentage of 67.77.

The rations fed the two steers are as follows: February 3, 1904, Challenger was receiving sixteen pounds of grain per day. This was increased to eighteen pounds March 3 and to twenty-one pounds April 30. He was then given grass pasture during the day, on account of which the grain ration was dropped to sixteen pounds per day. This was again increased to eighteen pounds June 3, twenty-one pounds August 3, twenty-three pounds October 3, and twenty-seven pounds November 3. During the latter part of November the ration was again reduced on account of the trip to the Chicago show. At no time was more than twenty-seven pounds fed per day. This was considered a very heavy ration and it was necessary to be extremely careful about being irregular. He was heavily fed because of a lack of flesh shortly before the stock show.

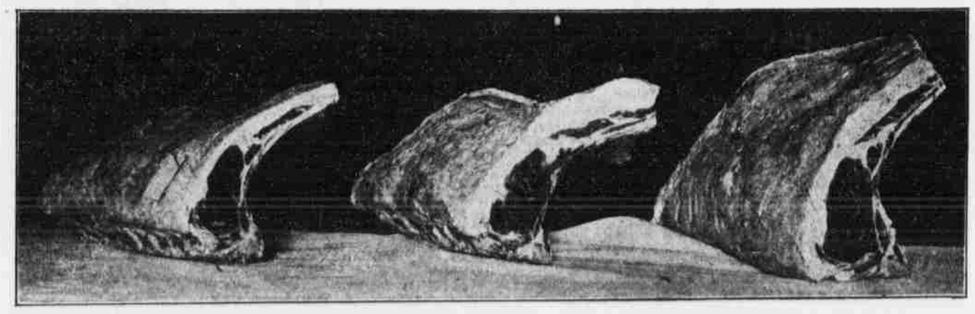
Scientific Feeding.

Stanton received February 3, 1904, thirteen pounds of grain per day. This was increased to fifteen pounds April 30, when he also was given grass pasture and the grain ration dropped to twelve pounds per day. This was again increased until sixteen pounds was fed in November. At first both steers were fed the same ration, consisting of corn 50 per cent, oats 20 per cent, bran 20 per cent, oil meal 10 per cent. They were given in addition a few beets. June 9 the bran was reduced to 10 per cent and 10 per cent of wheat added. At the same time Stanton's allowance of corn was reduced 10 per cent and his oats increased 10 per cent. Stanton's corn was further reduced August 13 to 15 per cent and the oats increased to 50 per cent. At the same time the proportion of oil meal for both steers was increased to 15 per cent. Challenger's ration September 3 consisted of corn 30 per cent, wheat 20 per cent, oats 15 per cent, barley 10 per cent, bran 10 per cent, oil meal 15 per cent. On this date Stanton received corn 15 per cent, oats 20 per cent, wheat 20 per cent, barley 10 per cent, bran 10 per cent, and oil meal 15 per cent. October 1, Challenger received corn 30 per cent, oats 15 per cent, bran 10 per cent, wheat 10 per cent, barley 10 per cent, rye 10 per cent, and oil meal 15 per cent. Stanton on that date was receiving corn 15 per cent, oats 30 per cent, bran 10 per cent, wheat 10 per cent, barley 10 per cent, rye 10 per cent, and oil meal 15 per cent. November 5, 5 per cent was taken from the oats and added to the oil meal.

Undoubtedly good results would have been secured without the addition of the wheat and rye to the ration. It was done solely for the sake of greater variety, which tends to make the daily ration somewhat more appetizing. In the case of Challenger heavy gains were desired and it was thought that a large variety would cause him to consume more feed and therefore make more rapid gains.

Neither steer refused feed at any time. It became necessary at one time to reduce considerably the daily ration, owing to the fact that a large quantity of smoke was inhaled during the progress of an accidental fire in close proximity. This was something of a setback to their growth at the time. Both steers were excellent types of butcher steers and at the same time were thrifty doers in the feed lot up to the time of ripeness for market.

H. R. SMITH.



RIB CUTS OF THE THREE STEERS, SHOWING PROPORTION OF LEAN TO FAT—CHALLENGER II ON THE RIGHT, STANTON IN THE MIDDLE AND THE MEDIUM GRADE STEER ON THE LEFT.

Quaint Features of Current Life

Presentiment of Danger.

IN A SERMON Sunday, March 5, Rev. Mr. Rudy, pastor of the First Christian church in Sedalia, Mo., used the following anecdote to illustrate a point:

"About ten years ago I talked with a man in Henry county, Missouri, who gave me this peculiar experience of his. He said: 'I was plowing corn, and about the middle of the afternoon, when I came to the end of the field, I had a peculiar sense of dread or fear. I unhooked my team and drove home. I could give little reason for what I was doing—quitting my work in the middle of the afternoon—but I was not home ten minutes until I was hurrying my wife and children into a cyclone cave. Our little house was swept away, and had I not followed what seemed a vague impluse my family might have been killed.'"

Nature's Recompense.

During her babyhood Emma Lou Lawson of Pulaski, Tenn., now 14, lost both hands by amputation, made necessary by necrosis of the wrist bones. The little miss is an exceedingly bright child, an orphan, and notwithstanding her physical disability, can write a beautiful hand and work examples in arithmetic. She can thread a needle almost as quickly as anyone, and sews well. All this, coupled with her cheerful disposition, makes her a favorite with all who know her.

Voodoo Woman Got the Money.

The Jersey City police are looking for a middle aged woman, wearing a tight-fitting brown coat and a black skirt, who scared at least one negress out of her senses by placing what she called a voodoo upon her. The victim is a servant in the employ of a lawyer living on the heights. The voodoo woman represented that she had cast a spell on the negress, and told her she would shrivel up and die unless she paid over all the money she had. The servant gave her $22, all her savings, and begged the visitor to take away the voodoo. The woman said she couldn't do it for such a small amount, and the terrified colored girl handed over a skirt, a shirt waist and a pair of shoes. Then the voodoo doctress made a few passes with her hands to remove the voodoo and passed out with her collection. She is described as five feet six inches tall, with brown eyes and dark hair.

Midnight Music at a Grave.

At midnight, March 17, Prof. Alvah O. Schaeffer, Reading's cornetist, kept his pledge to his departed friend, Thomas C. Hannahoe, in life better known as the "mayor of Irishtown," when he played several selections over his grave. Accompanied by several friends and a crowd of interested spectators, he proceeded to the Catholic cemetery, Reading, Pa., and when the court house clock struck 12 he played in distinct tones, "The Lass of Gowery," which was the favorite song of the deceased. After a pause he struck up "Nearer, My God, to Thee."

When Mr. Hannahoe lived he would always entertain a party of his friends at his Stars and Stripes hotel, and Cornetist Schaeffer furnished the music. When he was lying on his deathbed he called his friend to his side and made him promise that he would play the above selections at his grave each St. Patrick's day at midnight.

After the music a goat lunch was held at a nearby hotel, when a toast was drunk to the memory of the departed and lamented "mayor of Irishtown."

Tersely Told Tales Both Grim and Gay

A Thought from Niagara.

JOHN JACOB ASTOR, at a dinner in Philadelphia, talked about Niagara. "Everyone who goes to Niagara," he said, "hears some absurd, ridiculous and inept remark there. You stand and gaze at the falls, profoundly moved, unspeakably impressed, and then, all of a sudden, something fatuous is said, and the effect of all that grandeur is dissipated forever.

"Who, since the falls were discovered, has been allowed in peace to drink in their superb beauty? Not I, for one.

"The day I first saw Niagara a man touched my arm as I looked up at those white waters. I turned to the man. He had the silly and vacuous smile of a confirmed joker.

"'It seems a shame,' he said, 'to see all this going to waste.'

"'What are you?' said I, 'an electrical engineer?'

"'No,' he answered, 'a milkman.'"

Doubtful Satisfaction.

An English newspaper says that a schoolmaster was in the habit of punishing scholars who came late to school in the morning by keeping them in the afternoon. One who was five minutes late was kept in ten minutes, and so on in proportion. One morning it chanced that the schoolmaster was half an hour late, and a smart boy among his pupils was not slow to remind him of the fact. "I'm very sorry for being late, boys," said the schoolmaster, with a twinkle in his eye, "and as I punish you, it's only fair that you in turn should punish me, so you will all stay and keep me in for an hour this afternoon."—New York Tribune.

Bill Hackney's Inscription.

The prominent part that William P. Hackney is taking in legislative affairs has led to the revival by the Kansas papers of the old story of one of his investments in Winfield. During the boom days he built a large three-story brick business building, in the front of which was set a tablet bearing in large letters his initials, W. P. H. Years afterward—after the boom had collapsed and Mr. Hackney had lost his property, and while the building was almost tenantless and deserted, he drove past the building with a friend, who asked him what the letters stood for, and Mr. Hackney answered: "Why, don't you know? They stand for 'William Played H—.'"—Kansas City Journal.

All is Work.

Prof. Nichols, the Cornell physicist, during the recitation of a freshman class in natural philosophy, observed a tall, lanky youth in a rear seat, his head in a recumbent position, his body in a languid pose, his eyes half closed, and his legs extended far out in an adjacent aisle. He was either asleep or about to lose consciousness.

"Mr. Frazer," said the great scientist, "you may recite."

The freshman opened his eyes slowly. He did not change his somnolent pose.

"Mr. Frazer, what is work?"

"Everything is work," was the drawling reply.

"Sir," exclaimed the professor, "remember that you are no longer in a preparatory school! Do you mean to tell me that is a reasonable answer to my question?"

"Yes, sir."

"What! Everything is work?"

"Yes, sir."

"Then I take it you would like me and the class to believe that this desk is work?"

"Yes, sir," replied the youth wearily, "that desk is woodwork."—Philadelphia Ledger.