

# Transmississippi Poultry Show an Educational Factor of Much Value



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**A** YOUNG woman with enough plume in her hat to have equipped any ordinary barnyard fowl was affecting to take an intelligent interest in the various birds and chickens on display at the Transmississippi Poultry show.

"How," she asked her companion, the fanciest of fanciers, "How are birds judged? I like this rooster which did not get any prize at all, much better than that old thing there which has a blue ribbon, and besides I know the owner of the first one and he said it was a very superior rooster."

"Did he call it a rooster?" asked her companion.

"He did," snapped the girl, and I think he is a good deal more of a gentleman than you are."

"Answering your question about judging birds," said the man changing the subject abruptly. "You first take the fowl from the coop and after examining the head and the wattle—do you know what wattles are—you then turn it to an angle of 180 degrees from the horizon and peer closely at the breast. Next restore it to an angle of ninety degrees and scan the lobes, legs and ears. After rating the bird on these points and the body, neck, comb, eyes and color of plumage, you do a little mental arithmetic and announce the result. Do I make myself clear?"

"It is clear," said the girl, "that you are trying to be funny and falling down hard."

A poultry show is like every other exhibition in the world in one respect. There assemble many who know as little of the poultry as they do of chloroform and the amount of "fourflushing" at the poultry show is almost as great as at an art exhibition. On the other hand the number of men and women who know something of chickens and can at least distinguish between a Plymouth Rock and a Brown Leghorn without looking at the entry slip, is surprising until one remembers first that a show of this kind naturally attracts first those who have knowledge of and are acquainted with this sort of thing, as well as the fact that of a western city's population a large proportion of the men and women came from the farm and were at least accustomed to collect eggs in juvenile days.

How true this last statement is of a divergence from a strictly poultry theme is permitted—was illustrated at a recently held a banquet in this city. There were fifty-three men present averaging in age about 30 years; of these only seven admitted to having been born in Omaha and of the other forty-six, thirty-nine had passed their earliest years upon a farm.

Thus a poultry show like a corn exposition comes closer home—the early home—than would be thought at first glance. For a few a poultry show is in a business way their only home. There are a number of men who do nothing else for a livelihood than to compete for premiums offered by poultry associations. They are not altogether welcome competitors for their discouragement by their presence less specialized exhibitors over whom they have the manifest advantage of experience and they defeat the real purpose of exhibitions which is to help the poultry breeder's science. It is difficult, though, to devise rules which will not bar out desired entrants along with these professionals.

The purpose of an exhibition like the Transmississippi is in fact as truly educational as that of the National Corn show, and while less attention has, of course, been attracted to the first named, it has in a modest way been as helpful to chicken breeders as the greater show was to corn and oats breeders. Moreover, the great growth which the Transmississippi has experienced goes to show that its full scope is not yet reached and that its possibilities are vast.

An attentive crowd was gathered around a small grating near the stands of the Coronation kennels. The crossbars were wide enough apart to permit a fox terrier pup to pass through with ease, and Charles Benson was trying to induce the dog to bring through with him a crooked stick. He had given it to the puppy so that the V which the crook formed pointed in the opposite direction to which the dog advanced. The result was that the crook caught on a crossbar every time the dog tried to get through, he holding the stick by the forward end.

Again and again the dog tried and failed. Benson was experimenting to see if the young canine could focus out the difficulty. If the dog had caught the stick by the other end his progress would have been unobstructed.

To help matters along, Benson took the stick away from him and threw it down again. The puppy caught it by the middle and with the stick at right angles to his line of direction tried to push through. This was, of course, impossible. Half a dozen times the stick was thrown and as often the dog did nothing but grab at it the first way he could catch it and try to get through. Of studying the problem and discriminating the knotty point, there was absolutely nothing doing.

Finally, by what was plainly sheer accident, the dog caught it by the right end and went through in triumph. A spectator who had just come up, and who had not seen the failure, remarked:

"Never dog. He knew the right end to take it by."

"It was pure luck," said Benson. "The dog did not even show the usual intelligence with which he is equipped. Your remark goes to show that before passing judgment upon a matter of animal psychology one should be in possession of all the facts."

"As a matter of fact, there is more loose talk about animal psychology than anything else I know of. People talk at random about 'instinct' and 'reasoning' and do not know clearly what they mean by the terms. Of course, animals have intelligence—some of them a marvelous amount. Of acts of pure reason not even many men are often guilty, and animals not at all. The statement of the greatest living psychologist in the world is about the best and shortest. Wundt declared: 'Few men and no animals reason.'"

"Well, let me tell you about a dog my uncle owned," began one of the spectators, who looked ready to combat Benson's statement. "This dog—"

"Wait a minute," said Benson. "I want you to tell me what the dog actually did and not what your uncle inferred was passing in his mind, and which he told you, and to which you added a little yourself, unconsciously."

The man never did tell his tale, for half a dozen other spectators all began at once to narrate how their grandmothers' pet cats used to tell the time and read the thermometer, or how "my dog used to feel



ONE TYPE OF ROOSTER.



PRIDE OF THE BARNYARD.



A FINE FIGHTING COCK.

remorse when I whipped him, he was so human, and a dozen other narratives.

"One is a chump to try to combat dearly cherished views like these," reflected Benson. "Nothing on earth could shake their views, and certainly not the truth. The truth in a matter of this kind is not thrilling enough to satisfy. They want to believe that animal mentality is almost equal to the human mind and they can't be stopped thinking so."

Children have gathered in greater numbers at the kennel part of the show than around the coops, although the chickens and the fox terriers were as innocent in appearance and as mischievous as a fox terrier ought to look and to be.

The smaller dogs, and also Boston bulls, setter puppies and fluffy baby spitzes, were ranged opposite the larger dogs, the mastiffs, Newfoundland and Great Danes. In the intermediate class were the collies, affectionate as a cat and a good deal more trustworthily.

The feline tribe got into the show through some handsome Persian cats shown by Mrs. H. O. Hanson of 1307 Martha street. These

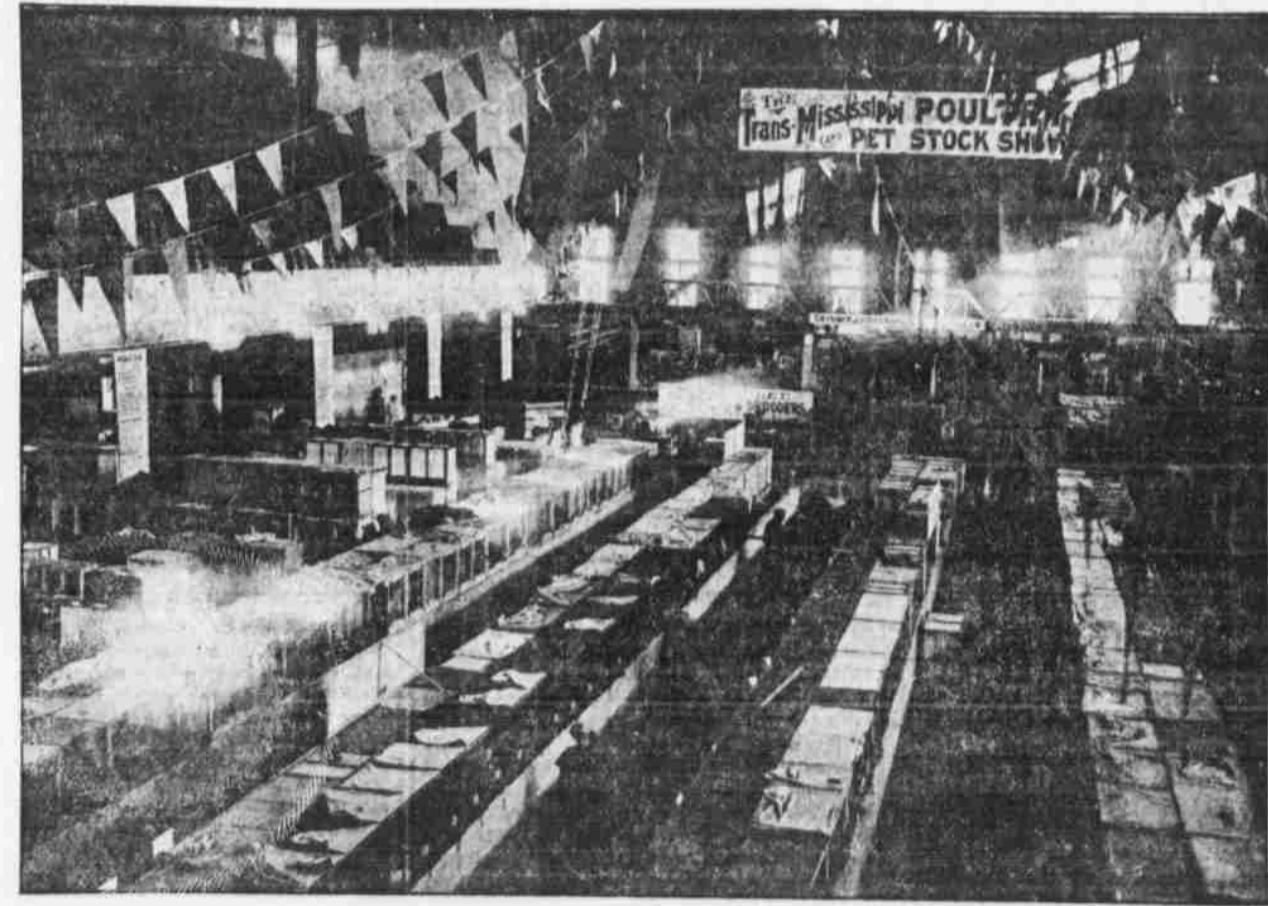
aristocrats of the cat world kept a good deal more quiet than the dogs at the show, who, after the manner of bench show dogs, generally tried all to bark at once.

**Electric Railways in Germany.**  
American Consul General Richard Guenther writes as follows about the electric tramways of Frankfurt:

The Frankfurt electric tramway lines at the close of the fiscal year (1907) had a length of thirty-eight English miles and carried during that year 74,550,000 passengers. There are 612 cars for the passenger service and the total number of employes is 2,324. As most of these are married, the Frankfurt tramway service furnishes means of living for about 10,000 people.

On an average the electric cars run over 50,000 English miles per day. During the great international Turzler festival last July the number of miles run on some days exceeded 60,000. Though the fares are lower than in American cities (ordinary fare is 10 pfennigs, not quite 2 1/2 cents) yet the net profit derived from the service turned into the municipal treasury was 1,315,000 marks (\$312,970). The profit realized during the year by the city from its electric lighting and testing plant aggregated \$49,230.

The stride tramway travel has taken in Frankfurt, in the last decade can be discerned when comparing the above statistics with those of 1897, when the city bought out the then existing horse-car lines which belonged to a Belgian joint stock company. Then the total length of line was 19 1/2 miles, number of cars, 197, which carried during said year, 26,500,000 passengers and covered a running distance of \$2,375,990 English miles.



GENERAL VIEW OF THE AUDITORIUM DURING THE POULTRY SHOW.

## Flying of Kites in Thunder Storms by Benjamin Franklin Opened Up an Unlimited Field

**B**ENJAMIN FRANKLIN went flying kites in thunder storms for some purpose. He hadn't a guess as to the wonderful future of that discovery of his and probably never in the moments of greatest elation over the strange results of his experiments did there come to him a vision of that which was to be realized.

Nowadays electricity is constantly assuming more and more of the world's work, says the Toledo Blade. There are few things that it does not do, fewer by far than it cannot do if given the opportunity. The application of the force to practical labor waits less on the will of the inventor than on the determination of the user of power to test electricity in his business.

There is prospect of a wider application of electricity to the heating of dwellings. The thing is most feasible, but has seemed to have met with a wall of conservatism. Even in the places where water power has cheapened electricity its substitution for the furnace has not come out.

The arrival of the electrical age appears almost at hand. It is here so far as our communication is concerned, nearly here as regards transportation. Production is very likely to have to depend upon it entirely before the century is out.

**Coming of Electric Locomotives.**  
Among the inventions which Edison predicted as coming within the next twenty or thirty years to mark the most wonderful advance in science and invention that

the world has ever seen, and of which the News recently gave account, he named the electric locomotive, and predicted that on our main trunk lines it would replace steam locomotives. The change, he thought, might be looked for within fifteen or twenty years, dependent on the financial condition of the country. It is a credible prediction, for roads are already "looking" in that direction, and it is probably even now more a question of finance, of working from one system to the other economically, than anything else. The New York Central road has had electric locomotives on its Harlem division, from the city of Mount Vernon, for two years, and now contemplates the extension of the service thence to White Plains. In these two years only one serious accident has happened, the New York Tribune says, and this was by no means clearly attributable to the new method.

The Tribune goes on to speak of what all know—the advantages of the change to passengers and to people that live on the line of the road—the ending of smoke, steam and cinders, and the advantage to the road, as well as of the acceleration of movement after a stop, which is of particular value in a suburban service. But for the financial stringency of recent times the road had long ago undertaken the extension. The Tribune says that the trial of a direct current and a third rail, which have been characteristic features of the Central's method, has evidently satisfied the company that it has made no mistake here, and that besides the economy of the substitution of electricity, the plan has ob-

vious recommendations. The third rail is no menace to employes or even to passengers on the right-of-way. Its current is of such low voltage that it can not kill. In all the two years no one has been hurt by it. It has other advantages in being more easily shifted with the track than other systems, while its freedom from side supports and overhead wires leaves nothing to be knocked out of gear in case of accident, and so paralyzing traffic. It does not follow that the system will be adopted for long runs, since the alternating current has undeniable merits.

**Machine Control by Wireless.**

Wireless electric control of distant apparatus would seem to be a certainty of the near future. Of course there is no possibility, as some seem to expect, of wireless power transmission. The power or electricity, must either be generated at the machine or transmitted to it in one of the usual ways; the electro-magnetic waves may start, stop or control the machinery, but cannot run it. Several inventions are now able to exhibit devices of this sort that will work for short distances, so that the problem now is merely to increase the radius of action.

In the latest form of apparatus, invented by two engineers of Nuremberg, Germany, and exhibited recently in that city, the same sending apparatus actuated one or another of various machines in an adjoining room, according to the position at which a lever was adjusted, thus demonstrating the possibility of

"tuning" the receiving apparatus so that it will be affected by waves of only one length. With the sending lever in one position, for instance, electric lamps were lighted at the receiving station; at other positions a steam engine was started, slowed up or stopped; at another still, a revolver was fired, and so on.

When this or some similar device has been perfected so that it will operate at a sufficient distance, it will be able to control automobile torpedoes, explode mines, and so on. It will, apparently, however, be subject to the same objection as the present operative systems of wireless telegraphy; that is, the possibility of another operator's "butting in." It might be awkward to have the enemy steal your torpedo en route and turn it against one of your own ships.

**Aluminum Tests.**

Tests carried out by the British National Physical Laboratory determine the maximum load of aluminum wire as 2.4 tons per square inch (24.2 kg. per sq. mm.), and the yield load was 12.7 tons per square inch (126.6 kg. per sq. mm.), whereas an aluminum overhead line is usually proportioned for a load of only 1 kg. per sq. mm. It is almost the invariable practice to employ a stranded conductor for overhead transmission lines of any importance, no matter whether of aluminum or copper. An aluminum conductor of a given cross-section is composed of some 60 per cent more strands than the equivalent copper conductor, and actually offers less increase in resistance due to "skin effects" than is

the case with the copper conductor. The distance apart at which the overhead conductors must be placed to withstand a given electrostatic pressure between them without having a brush discharge is less the greater the diameter of the conductors. This is another point where for high tension overhead transmission lines (and also for underground cables) aluminum has the advantage over copper. Aluminum is already employed on at least 1,000 miles of overhead transmission lines in various parts of the world, under varying climatic conditions, and a specimen out of an aluminum line which has been in operation in an exposed position on the sea coast for over seven years shows practically no trace of deterioration. The aluminum transmission lines at present in operation were installed when the saving in cost over copper was appreciably less than at present, and the fact that the employment of aluminum for this purpose is continually on the increase indicates that no engineering difficulties have been met with which have not been satisfactorily overcome.

**Tunnel Electrified.**

One of the greatest engineering feats for many years has been completed by the electrification of the St. Clair tunnel—Canada's Grand Trunk railway system, which was definitely opened for traffic on Nov. 12. The St. Clair tunnel is one of the longest submarine tunnels in the world, being over two miles in length, encased in an

iron tube nineteen feet and ten inches in diameter, the tube alone weighing 56,000,000 pounds. The Westinghouse company were the contractors, and it has taken them a year to construct it. The cost was more than \$100,000. This improvement will increase the efficiency of the tunnel enormously, as the new electric locomotives which will be used for traction will be able to haul 30 per cent more traffic, and save 60 per cent in time over the giant steam engines they have displaced, irretrievably overcoming the danger and inconvenience of having the tunnel clogged with gas and smoke. This is the third great engineering feat accomplished by the Grand Trunk railway, the others being the single arch steel bridge spanning Niagara and the large Jubilee Victoria bridge crossing the River St. Lawrence.

**Letters by Wire.**

M. Pascal Berjonneau, a Frenchman, is bringing out a remarkable invention which he calls the telautograph. This apparatus, as its name implies ("who himself writes a distance") makes it possible to transmit speech written and spoken. It may take the place of any telephone system. It is as big as a typewriter, and operates by means of clockwork moved by a very powerful spring. It is very simple, and can hardly get out of order. A child can work it. Henceforth, it is claimed, a dispatch can be transmitted over 600 miles, and will retain intact the same writing and signature. All that is necessary is to write the telegram on metallic paper with a special ink, this paper being placed upon a cylinder upon which as it turns a needle writes.

The correspondent, who may be hundreds of miles away, possesses an identical telautograph, the cylinder of which is covered with a chemically-prepared paper, provided also with a needle. The electric current works the two needles.

The point of the transmitter remains inert as long as it passes over the bare metal, but directly it touches the inked part, it presses on it and communicates the pressure to the other end of the wire, where the reproducing needle places itself at the same time on the white paper of the receiving cylinder, so that the writing by a succession of down strokes juxtaposed one after the other, ends by being faithfully reproduced. For instance, in the transmission of a capital "V," you will see first the heads of the two down strokes, then the latter contract to meet at the tip which forms the base. In the same way it will be possible to transmit a music score, a pen and ink drawing, etc. During these transmissions it will be possible for the transmitters and receivers to telephone.

A noticeable feature of the invention is that it is possible to insure the strict accuracy of the communication which it is desired to make. It is sufficient to set the cylinder at a number of turns agreed on beforehand, and only those who have their apparatus set accordingly will receive the message.