

1
Address to Farmers of ^{Deleware} — County.
Dr. A. S. Melick.

It gives me sincere pleasure to offer to you my fraternal greeting and to utter a few words of earnest sympathy with the objects that have called you together. As an association organized to advance the first and most fundamental of all callings the ends you propose to attain should be clear and definite, the means you employ should be wise and well considered and the zeal that animates

² you earnest and unflagging.

Of all the industries that have quickened modern progress there is none whose antiquity is so great or whose dignity is so genuine or whose success is so essential to human welfare as the one you are combined to foster. For from my earliest youth to the years whose passage has touched my head with frost I have held the conviction that where all its higher purposes are met and all its higher opportunities

3. are improved the farmer's life
is the truest life that man
can live. Nor indeed is there
another calling which embraces
so wide a variety of interests as this
to exercise ingenuity and stim-
ulate effort. For forestry, vegeta-
ble gardening, and fruit culture
in all its branches - the product-
ion of the numerous grasses, grains,
and esculent roots - the raising
of stock such as horses and mules,
hogs, sheep, and horned cattle
whether for the dairy or the flock

4 these and much more belong to
the business of Agriculture, And
such is
the diversity of these employments
of the farm that each of them
demands a distinct and sep-
arate experience, so that the man
is rarely found whose eye is true
and whose hand is skillful
in them all. Then there is no
other vocation to which science
is giving such help and encour-
agement as to that of husbandry.
Botany, once confined to barren
classifications, now turns its at-

5- Attention to the processes and
laws of vegetable growth.

Entomology is scrutinizing the
habits and modes of propagation
of the innumerable insects that
are harmful to the crops, and is
devising the means for their de-
struction. Chemistry reveals by
analysis the varying constituents
of the different plants and by
showing that these constituents
must abound with similar pro-
portions in the soil sheds a flood
of light on the whole subject of

6 fertilization and the rotation of crops. Chemistry is also rapidly developing those laws of economy in the feeding of stock which have been hitherto left to the unaided observation of the farmer alone. Chemistry discovers and declares that each ingredient in food for animals is productive of a particular and certain result and that of the various crops raised annually for animal consumption some are best fitted to be worked into the fibre that gives capacity for pliancy.

7 some into the weight that produces strength and that some concentrate more largely the elements that are productive of growth. Muscle and bone, butter and cheese, pork and beef, all lie in scattered atoms in the soil. These are gathered by subtle processes into vegetable forms and then changed by assimilation into animal products, and the day is not distant when science will enable us to conduct the whole series

8 of combinations that the dead
mould shall be transformed into
the marketable commodity with
the smallest possible waste of
muscle and material. Again in
no other pursuit does invention
and discovery bring such im-
mediate and wide spread bene-
fits to the world. Every improve-
ment whether in implements or
in processes either gives relief to
human suffering or adds to the
sum of human enjoyments. A tri-
umph in the better breeding of a

9 single variety of sheep ^{for instance} improves
and cheapens the fabric worn
universally. The iron mold board
is substituted for the wooden one
of other days - the reaper takes
the place of the sickle used forty
years ago and the immediate
consequence is that the millions
are better and more easily fed.

Thus (Science), invention, skill
^{intelligence} and labor have joined hands
and found their field of success-
ful operation on the farm. And
they have given a marked and

rapid impulse to the development
of its resources in the shape of more
remunerative crops and more valu-
able stock - Under its transform-
ing influence the grafted fruits
have everywhere supplanted the
crabbed offerings of the natural
tree. The Scythe, the cradle, and
the flail, have well nigh disap-
peared and sinews of iron and
steel do the drudgery once done
by the human arm. The horse
has gained a better breeding
and greater vigor and endurance.

The sheep, once coarsely and
thinly clad, has exchanged
its worthless toggery for a fleece
unrivaled in beauty, bright and
fineness, and the native cow,
with her pinched vitals and
gothic ribs will soon give place
universally to the symmetrical
Droon and the magnificent
Short-Horn. * And this marvellous
advancement in every branch of
Agriculture has been signalized
and helped by Agricultural
Associations formed everywhere.

¹² and by agricultural fairs held all over the country both for the county and for the State. The

Main purpose of an agricultural fair then may be very clearly and definitely stated. It is to encourage invention and skill and labor by a competitive exhibition of their combined achievements in agriculture. In this way it stimulates the producer by publishing his triumphs to the world - In this way it extends a fostering care over

all the values that spring from the soil - In this way it encourages the growth of every fruit-plant which is useful to man for food or fabric. It is for this reason that your published list-proposes to bestow premiums for specimens of the highest-excellence in form and quality from the garden the orchard or the field. Under the influence of a wholesome competition the finest-samples of grains, vegetables and fruits of every variety, of sheep, swine,

¹⁴ horses and cattle of every breed
become objects of universal
attention and solicitude and
a healthy public interest is ex-
cited and steadily maintained
and agricultural improvements
advance from year to year
without limit. Such are the
purposes, my friends, for which
your association has been or-
ganized, and such the noble
objects for which you hold your
annual fair. And I cannot
better express my sympathy in

these objects than by giving you
brief and specific Council which
my experience suggests as to the
wisest policy in the management
of Agricultural fairs.

First then, since the belongings
and products of the farm are
many and various so you are as
a Society the constituted guardian
of them all. You cannot ignore or
neglect any of the interests you
have assumed to foster in order
to turn your attention exclusively
to other interests for which you may

chance to have a higher regard.
All the branches of agriculture
 and all their marketable prod-
 ucts are parts of the complex
 whole which constitute the enter-
 prise you propose to forward.
Most assuredly you are ^{Simply} not a
 sporting club for the trial of
 speed in horses - You are not
 an association for the breeding
 and improvement of sheep and
 swine, or of Devons and Durhams.
You are not an association of
 grape growers - not a pomological

17 or horticultural Society - not a
combination for the production
of better implements and ag-
ricultural machines - You
are not one of these alone but
you are much more than all
of them together. Their purpose
is specific - yours generic -

You overlap and comprehend
them all - With all these various
interests to be represented let no
one department of them rise up
like the Lean Nine of Egypt and
devour all the rest - Give to every

18 Article of ~~over~~ whatever class,
to every animal of whatever spe-
cies or breed the opportunity to
compete for a premium ade-
quate to its comparative im-
portance. Perhaps the ^{Delaware} —
County Association has never
been menaced by such a dan-
ger, but I have known Fairs
in another state to lose much
of their hold on public interest
on account of the dispropor-
tionate time and attention
given to the exhibition of the horse ^{of a single day} ~~of the horse~~

19 to the neglect of other interests
equally great.

Then further let me
counsel you that of all the sam-
ples of excellence on exhibition
you give aid and encourage-
ment to each according to the
measure of its usefulness in prac-
tical life. Fancy farming in all
its aspects is only a species of idle
amusement. Every article, animal,
machine or product must be val-
ued according to its fitness to ac-
complish a definite purpose

20 with the smallest waste of power
or material. The roadster must
have just that compactness of
bone and muscle that will secure
a speed most rapid and sustain-
ed. The ~~Draft~~ horse must show
just the complement of form
and weight most conducive
to strength and rugged endurance.
The Dairy cow must possess a
power of assimilating food so
perfect and peculiar that what-
ever the mouth devours the udder
restores in the largest measure

21 of the richest milk and in the
or there must be such an ad-
justment of form to fate that
he may bring to the block the
smallest proportion of gristle
and bone to the largest propor-
tion of round and sirloin. The
value of all things must be de-
cided by the degree of their ad-
aptation to their ultimate uses,
and any quality outside of
this that draws a premium de-
ceives the eye and warps the
judgment. Most things that are

22 Bought and sold have qual-
ities that are useful to man
and qualities that are com-
paratively worthless - Nobody
would decide the merits of a
Lackass by the quality of his
^{music}~~voice~~ and take no account
of his muscle and strength -
So Nobody should judge of
a winter apple by its size and
color and ignore its keeping and
eating qualities - The horse has
three paces, the walk, the trot,
and the run, The walk and

23 the trot are in the highest degree practical and useful and therefore they should be encouraged, exhibited and rewarded, but the run is of no practical use and therefore it ought never to be exhibited at an agricultural fair -

In the entire arrangement of the programme of shows in the awarding of every premium and the conferring of every diploma the whole aim should be to stimulate the production of actual values and the

24 Suppression of spurious ones and
great care should be had that
no special preparation for the
fair and ^{no} species of decoration
should ever lead to the confound-
ing of that which is genuine with
that which is worthless. One thing
most imperatively needed at all
our fairs is a true standard of
judgment for every article on exhibi-
tion. For want of such a stand-
ard those qualities that strike
the eye are apt to deceive the judg-
ment as to the real character of the

²⁵ competing article. This influence
has operated as a drawback to
the many genuine results reached
by some of the Eastern fairs and
has tended in some quarters to
encourage the development of more
bulk. Of all the properties in
specimens displayed at public
exhibitions the most striking and
impressive is that of size. Only the
most cultivated eye is able to re-
sist the effect of huge and unusual
proportions. Viewing Committees,
magnetized by this influence, not

²⁶ Unfrequently pronounce that of
all the articles placed in compe-
tion, the biggest is the best. The con-
sequence is an anxious product-
ion of a rank overgrowth which
is utterly at variance with that
compactness and fineness of fibre
and delicacy of flavor which
combined with the proper dimen-
sions constitute genuine excellence.
Grossness of growth and coarseness
of texture go often together. Of two
potatoes, the one whose size is aston-
ishing has attained its surface

29 striking instance of the point in question. Its muscles were small.

Sped in huge layers of fat, gathering here and there into wen like excrescences, unhealthy enough to spoil the digestion of an ostrich.

Yet this monstrosity of grease took the premium over another whose tumors were less protuberant. I confess to an impression which is in full sympathy with one who complains "that the Societies for agricultural encouragement persist in giving premiums to (so-

called) fat cattle, mere monsters, not
of good wholesome muscular fibre,
well mottled, but mountains of soli-
d pore substance which no Christian
can eat and which are only dis-
posed of profitably by serving as
an advertisement to some venture-
some landlord from whose table
the reeking fat goes to the Soap-pot.
The truth is that in every organized
substance whether vegetable or
animal it is the harmonious de-
velopment of all its natural qual-
ities that constitutes its perfection,

31 and as size is one of these it follows that it can be enlarged only in a just ratio to the improvement of all the rest. Every article and animal entered for premiums should be shown in its normal and proper condition. I mean that condition in which it will best subserve its allotted purpose on the farm. The roadster should present a muscular development hard and clean unobstructed by layers of superfluous fat. One of the

32 indications of excellence in the
milk cow is leanness. The activi-
ty of the organs that supply the
udder ought to prevail over all
others and turn everything not-
medful to the vitality of the an-
imal into milk. The business
of calves is to grow — to grow with
a just proportion and compact-
ness of muscle and bone and
the healthiness of the process should
never be impeded by underfeeding
for the farm or overfeeding for
the fair. Let every product-wheth.

34^{er} vegetable or animal be presented for exhibition precisely in that state in which it will best fulfill its specific office at home. I am glad to say that this tendency to overrate the value of mere bulk, is, after all, exceptional, and so may be looked upon as a departure from the general practice in awarding premiums at agricultural fairs. Such awards are, beyond question, generally just, and the few that are not so, under the influence of the above mentioned prej-

34 edices are at any rate in harmony
with public opinion. The tendency
I have referred to will disappear
before the progress of a more dis-
criminating taste and judgment
counteracted as it will be by more
general education gained at
agricultural institutions. Another
lack in the completeness of the
many positive benefits conferred
by agricultural fairs lies in the
methods of preparing particular
products for exhibition. It may
be fairly doubted whether in some

35 cases the special policy pursued
in filtering commodities for the fair
will serve as an example which
may be profitably followed in
general practice on the farm. The
question fully stated is, Whether
the thing exhibited fairly repre-
sents the general results reached
by the exhibitor, in the production
of the entire class to which it be-
longs, or whether it has been evolved
from stimulating processes outside
of his ordinary practice and too
expensive for general adoption.

36 In the former case, the article if
excellent is of great value for the
end to be gained by the exhibition.
In the latter case, whatever be its
qualities, it is worthless, except
for the purpose of empty show.
Of course any product however
remarkable in form or beauty, is
valueless as a sample, which has
been and must be produced at
an outlay which its marketable
value can never refund. Thus a
Canadian once showed with
great complacency, at his country

37 fair, a monster carrot, and un-
wittingly killed the interest it
excited by revealing the signifi-
cant fact that it had sprung
from a chance seed on the sun-
ny side of his barn yard and
had been hoed and watered
assiduously throughout the sea-
son, while his staple crop was less
than the ordinary yield. My
pleasure in dwelling on the round-
ed form and magnificent size
of a parling heifer was once
greatly disturbed on my being

38 told by the owner in a burst of confidence that up to the very time of the exhibition it had daily exhausted the udders of a brace of cows and that it was the most expeditious milker on the farm. I like magnificent yearlings but I have an internal habitual respect for butter and cheese as well. The question is, can I raise such carrots and calves, by a similar investment of care and cash, consistently with any known principle of agricultural

39 of economy. Nothing is clearer
than that we can never exhibit
collections of purely representative
objects so long as the farmer rais-
es by different processes one kind
of product to show and another
to sell. Let then every product
which competes for a premium
not only ~~show~~^{have} a high order of ex-
cellence in itself but let it repre-
sent invariably the excellence of
the general management under
which it was produced. Let the
fruits and grain and stock ex-

⁴⁰hibited serve as an index to the policy and processes employed on the farm.

I have thus glanced at the prominent evils to be avoided and the true objects to be reached in the management of a fair. Let me touch briefly the benefits it confers.

First then it gives opportunity to the people for wholesome recreation. Occasional relief from the monotony of constant toil is a necessity of man's nature.

41 Amusements properly interspersed with labor are exceedingly salutary. That father is unwise whose strictness in the government of his children gives no time for play. That school or college cannot attain the highest results in education which provides no intervals for recreation. No nation ever lost anything either of wealth or progress by its holidays. Aside from the night's sleep and Sabbath's repose it is needful that the soul should find occasional relief

42. from sterner employment in
healthful and harmless amuse-
ments. Many governments ap-
preciating this fact have at
public expense opened galleries
of rare and valuable collections
for the gratuitous entertainment
of all classes of people. This love
of diversion, natural, universal,
strong, may wreck the fortunes
of many a youth by leading
him to the haunts of vice and
folly, but can nowhere find a
deeper gratification than amid

43 the interesting objects of an Agricultural fair.

Then again the fair gives a healthful stimulant to Social Life. We are social beings and it is needful that we should have means of social improvement. It is helpful that those who live within an accessible distance should see each other often and know each other well. Here I the holder of a farm among you I would if possible know every farmer of the County and make his best ideas my own.

⁴⁴ This opportunity for enlarged acquaintance is offered by your annual fair and you lose one of its many benefits if you do not carry away from it to your homes not only a gratified curiosity, a quickened zeal, a sturdier courage, but more active social sympathies and wider friendships also.

But you who are thus associated together have a work to do even wider than the fair embraces. It is yours to give the warm welcome to every new settler by

whose energy the wildness of the
prairie will give place to the
dwellings and school houses and
cultivated fields - It is yours to
cheer the farmer in every depart-
ment of his various toil - to stimu-
late his efforts after more genuine
results - to furnish models of ex-
cellence which he may strive to
realize - to reward his successes
and publish them to the world -
to offer him better tools and better
processes for bungling ones - to give
him easier access to all superior

46⁻ Methods which experience has furnished - all this is among the objects which such an organization as this ought to attain, for less than this would not accord with the purposes of a Society formed for the advancement of a great branch of industry on which so much of human welfare depends.

I cannot forbear to notice in closing a single feature of our Agricultural College which will when completed be more closely connected than any other with the

47 Agricultural fair. I mean the

Agricultural Museum which
we propose to gather in that Insti-
tution. A fair and a Museum
have many points in common.

A fair is a temporary Museum -
a Museum a permanent fair.

A fair is composed of a wider vari-
ety of attractive articles, simulta-
neously gathered, whose bulk and
value in many instances, make
their transportation expensive and
their retention impossible, and hence
they are on exhibition for a limi-

ted period. It is an assemblage
of samples more miscellaneous and
less perfectly classified - the Mu-
seum a collection of specimens
completely classified on a scien-
tific basis. Both present their ob-
jects to the eye and seek to grat-
ify a laudable curiosity - the one
in order to amuse, inform and
excite competition - the other to
instruct. The fundamental purpose
of our Agricultural Museum will
be as seems to me to make a full
exhibit of all the productions of Iowa

49 which are limited to a certain
bulk, and to include complete
sets of specimens illustrating all
the values that lie in and beneath
her soil. In the first place it will
embrace exhaustive samples of
those geological strata which in-
dicate the qualities and mineral
constituents of the soil in the region
where they are found. It will also
contain complete examples of the
minerals and ores which have al-
ready proved such a prolific source
of wealth to the state. It will comprise

Moreover illustrations of commodities for household consumption. of subterraneous origin, in different localities such as the coals, and also select specimens of all the mineral fertilizers, as limestone, marl, plaster and the like. The Museum ~~it~~ will be likewise a depository for the more excellent of the machines and farm implements which have been tried and approved by actual practice, together with a collection of similar articles from the most bungling to the best, whose purpose

shall be to display to the eye the progress of art in this particular. In addition to these, all the latest inventions, which are useful in prospect but as yet untried, will naturally find place in this division. Supplements of whatever sort, too large for the room assigned them could be represented by smaller models prepared for the purpose. This department can be easily filled by voluntary contributions from various manufacturers, and by inducing the exhibitors at the State

fair to give still greater publicity
to the premium articles by a
further exhibition at the Museum
indefinitely continued. Another
portion of the Museum should
consist of sample varieties of
wood indigenous to Iowa. These
samples ^{will} ~~might~~ be cut into the like-
ness of volumes of uniform size neat-
ly finished, labeled on the back,
and put up in library style. Again
the Museum will be made a depot
for seeds, which shall be perfectly
ripe pure and healthy. No part of

5-3 the enterprise can be of greater
moment to good husbandry
than this. Throughout the wide
domain of organized nature it is
an invariable law, that under
favorable conditions, like produces
like, even in the minutest particu-
lars. Principles better known and
applied in the breeding of domestic
animals, probably operate with
equal precision in the reproduction
of varieties in the vegetable kingdom.
Hence the sowing and planting of
seeds which are plump and perfect

54 are of vital consequence to the coming crop. "The development of a plant" says Liebig "depends upon its first radication, and the choice of proper seeds is therefore of the highest importance to the future plant. Poor and sickly seeds will produce stunted plants, which again will yield seeds bearing in a great measure the same character. A feature of not inferior interest will be found in carefully arranged specimens of wools from the flocks of our successful wool-growers, speci-

55-
mens which should demonstrate
the effect of breeding upon the fine-
ness and compactness of the flues,
and no less attractive to the stock
raisers in general ^{will} ~~would~~ be the
numerous engravings donated
by the owners of sheep, cattle or hor-
ses, which have become known to
fame, by combining in a superior
degree, all the excellent qualities
which spring from purity of pedi-
gree. Another department likely
to excite the enthusiasm of visitors
will consist of artificial models of all

56 the finer varieties of Iowa apples,
prepared by an inexpensive pro-
cess lately invented, and so accu-
rately finished and painted as
to be undistinguishable by the eye
from the natural fruit. Specimens
for models can be obtained to some
extent from the best samples
shown at the state fair, and by
gratuitous contributions from
other sources. No part of the coll-
ection will combine so strikingly
the beautiful and the useful as
this. But the limited space

57 allotted to an address warns me
to forbear a complete enumeration
of the classes of things which will
find a place in our Agricultural
Museum. I will only add that
our Museum ought to embrace
prepared and preserved specimens
of all the smaller animals, which
in this latitude are harmful
or helpful to the farmer - There is
an urgent necessity for a general
out-sight to be made upon those
innumerable pests that season after
season make such alarming havoc

58 With our crops of fruit and grain.
There is a necessity as urgent that
all the quadrupeds and birds
which are naturally destructive to
these noxious feeders should be care-
fully multiplied. With my returning
summer comes the resurrection of
the swarms of borers curculios, weevils,
worms, and the like, which combine,
in countless hosts, to rob the farmer
of the earnings of his toil. Partic
ular families of these have of late
generated with such marvellous
rapidity as to begot a bill grounded

89 fear that their numbers will result in the utter destruction of the crops on which they feed. In some quarters this fear is already realized. The Locust, once valued for its enduring wood and grateful shade, has yielded to millions of perforations which have well nigh reduced its limbs and trunk to dust. The plum tree which once offered its sure fruits, round, ripe, and pulping, now casts them annually to the ground, blighted and worthless. In all manner of vegetable

60 delicacies the worm is demanding
to be served first. The Time may
come when no man can taste an
apple, whose skin ^{unflecked} unflecked and
^{unrusting} unrusting, shall forbid the appre-
hension that the first incision
of the tooth will reveal a slimy
occupant. These various destroy-
ers, threatening such wide spread
evils, demand the wisest and
most vigorous measures for their
extermination. Such measures
can be founded only on an ac-
curate knowledge of their form

61 habits, metamorphoses, and
modes of propagation, and more
can be learned from a glance
at these in their different states
than from ~~an~~ hours application
to the unaided descriptions of a
book. But if ~~this~~ ^{our} Museum shall
present his enemies to the farmer's
eye it shall likewise present his
friends, the insectivorous birds -
shall present them in such guise,
that he shall be made to appreciate
the value of their friendship -
shall perceive indeed that he who

Wantonly shoots a single wood-
pecker, gives life to thousands
of injurious insects that propa-
gate in more than geometrical
ratio.

In this way, Farmers of
— County are joined and the
Agricultural College laboring to-
gether for kindred ends — To
elevate and quicken industry
and make it productive of high-
er results is our mutual pur-
pose, We shall compass these
benign and worthy objects, not only

63 by looking to the farmers' wants
in the present, but by providing
for his future needs; not only by
offering stimulants to the pro-
duction of single specimens of
excellence, but by diffusing as
far as possible, that knowledge
and skill which shall supersede
the necessity of temporary stim-
ulants and make anything else
than the permanent production
of excellent results impossible;
not only ^{in short} by aiding to improve
the quality of the work but by ^{aiming} aiming.

64 ing to elevate the condition of
the worker.

45 pages included -

Prof. ~~Assn~~ A. E. Meek

Ames, Iowa -