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From the best of the following breeds:
Hatched by the following persons:
W. L. SWETT, St. Johnsbury, Vt.

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The following is from a correspondent at
Tuford, N. H.: "It's quite good wheating
here; now mostly good; stock of all
kinds looking fine and can get considerable
barns in the pastures. Hay is getting
scarce, and there will be a small quantity
summered over—sugar-making is all the
go now and there will be some made, though
the weather is rather unfavorable. We are
expecting a wet spring, and to balance the
extremely dry winter. Ice in Lake Win-
nipeaukee is getting decidedly thin and must
break up very early. Farmers are hopeful
of better times and money is plentiful—
J. L. H."

**Most Grain Raising in Vermont is
Abandoned!**
A paper read at the meeting of the Board
of Agriculture at Ferrisburgh, February 1, 1877,
by Jonathan Lawrence.

Mr. President:—The subject I have as-
signed, or rather the question I set, is, Most
Grain Raising in Vermont is Abandoned?
No question of greater importance to my es-
timation is raised in my estimation, and I
will do my best to answer it. It is a grave
and serious one, and one we have got to
meet and look squarely in the face. It is
simply whether we are to remain in the
future, as in the past, largely a grain
raising state, or whether we are to become
a pastoral and a grazing people, letting
a portion of our cultivated fields return to
their native element, growing wool in-
stead of being as now, the grazing fields
of the state. Shall the greater probability
of grass growing out other productions still
keep the South we depend upon the West for
our grain and rely upon the profits from our
flocks and herds for subsistence and whatever
we may have of life that is worth enjoying.
Let us look at the wheat crop as it once
was and is now. Formerly wheat was the
staple product of the state. It was grown
not only for family use, but a large surplus
to sell which the bills of the farmer were
largely paid. It was by far the surest
crop, safer from early or late frosts and found
a more ready market than any other product
of the farm. Foreign wheat or flour was
unknown. Forty-two years this winter in
one of the hill districts of Waterford one
man, from some cause, failed to raise enough
wheat for family consumption. He brought
home a barrel of flour while I was boarding
there, and it was soon noticed round the
district that Mr. H. had got a barrel of Genesee
flour and at nearly every family where I
boarded after the woman of the house was
careful to let me understand that I should
not fare as well with them as at the other
place for they had no barrel flour. How is
it now? I think I am safe in saying that
not half of the farmers in the county raise
their own wheat, and that more money is
sent out of the county for wheat or its
product than for any other article except,
perhaps, whiskey and tobacco. It may be
that Peacham, which grows more wheat than
any other town in the county according to
reputation, may raise as much as they use, at
least among the farmers. One thing I do
know, that if they do buy part of their flour,
they buy the least whiskey of any town in
the county of equal population.

But let my Peacham friends should feel
too much flattered with what I have said
about their drinking habits. I will relate
a little of their early history. The original
proprietors of the town loved whiskey, or
they knew of somebody who did, for a large
number of the farms were bought and paid
for one half in cash and the other half in
potato whiskey, and the sites of thirty-five
whiskey mills can be pointed out in various
parts of the town. But to come back to our
subject: Are we ever to raise our wheat
again in Caledonia county? If so how is it
to be done? And right here is where we
want the wisdom of this board, whose duty
and pleasure it will be to put us on the right
track. Now, gentlemen of the board, those
of you who are scientific farmers, can you
tell us how we can grow our own wheat at a
less expense than to buy our flour? And you,
practical farmers, will you tell us from the
light of your experience how can it be done?
Do you do it on your own farms, or do you
do as we do in Caledonia county, buy your
flour and not only flour but shorts and every-
thing that can be made out of what? Ac-
cording to the report of the department of
agriculture for 1875, the average yield in
the state was 17½ bushels per acre; that
average price \$1.55 per bushel. Now, is
that a paying crop? Or can we do better, as
our farmers think, of more of them, and buy
their wheat product? If the board or any
one else can give us a method that will give
us paying crops of wheat in this state they
will have done a work that would be more
permanent benefit to the state, ten times over,
than the meagre appropriation that has been
grudgingly doled out to the board for the
dissemination of agricultural information in
the state.

Now, let us look at the corn crop, which
is supposed to be a safer crop in these years,
having fewer insect enemies, and that it will
bring a much better return than wheat. Ac-
cording to the report referred to above the
average corn crop of the state was 37 bushels;
average price 94 cents; value per acre
\$34.78. Now, is there anything we can
raise that will pay better than corn? If so
what is it? Some of the best farmers of
this county have discarded corn as a grain
crop, growing it largely for fodder, believing
they get better returns with the same ex-
pense than with it as a grain crop. An in-
telligent farmer of an adjoining town gave it
as his opinion that at least one-half of the acreage
that was put to corn in that town was for
fodder and not for grain, and that the fodder
crop was increasing yearly. Other farmers
grow their corn as for a grain crop and when
fairly in the milk out and cure it as for a
grain crop and feed it on the stalk. Some
good farmers I know of that formerly grew
corn, turnips, etc., believe they can grow
corn fodder at less expense and have given
up the root crop entirely. I doubt the wis-
dom of this class of farmers, believing that

the roots are essential to the health of the
stock.
How is it with the oat crop? The average
yield of oats in 1875 was 39 bushels per
acre; price 50 cents; \$19.50 per acre. Can
we do better with our land than to grow
oats? Some of our good farmers are eating
their oats when just in the milk, saving them
for hay instead of letting them mature for a
grain crop. This practice will be increased
I think with many dairymen who are mak-
ing milk a specialty. Other grains are
raised in small quantities as to vary
essentially the result. In the opinion of
some good farmers India wheat is the only
paying, or the best paying one in the state.
In this county it is on the increase according
to the statistical returns. It has been called
the poor man's crop, growing where so other
crop would. It looks very much like aban-
doning the grain crop when India or buck-
wheat is the best paying crop of grain grow-
ing in the state. Now, gentlemen of the board
and brother farmers, what are we going to
do about it? I have in my illogical and in-
coherent way stated a few facts in regard to
the grain crop of Vermont and close by re-
newing the question, must the grain crop be
abandoned in this state? If I have said any-
thing in the future, as in the past, largely
a grain raising state, or whether we are to
become a pastoral and a grazing people, let-
ting a portion of our cultivated fields return
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got—well, disturbed, and exclaimed with
the poet, or should I had thought of it
just then:
"Hail to the chief who in triumph advances,"
only it was not specially appropriate, just at
that moment. Remembering, however, that
Wordsworth has so beautifully said:
"That best portion of a good man's life,
His little, simple, unambitious acts
Of kindness and of love."
I persevered, and Bismarck had his sup-
per, and wrapping the drapery of his couch
about him, he "said down to pleasant
dreams," while I went to the house for a
thorough washing, and an evening given to
politics of Louisiana. The next morning—
the fourth time—all went away as a mar-
riage bell, except that Bismarck—who is
nearly white like his mother, save a red face
like hers, hence her name "Ruby"—was yet
stubborn about putting his head unaided in-
to the pail, but that difficulty he will over-
come, and his very slowness in learning is
proof of great undeveloped and latent re-
sources that I regard him, on the whole, as
most promising calf: precocity is abnormal,
and in the long run unfruitful and unprofit-
able. This principle applies to children as
well as calves, and the same might be said
of some others mentioned. My victory is
complete; my philosophy of teaching calves
is to teach them, just as the way to re-
sume some payments is to resume. Now if
Editor Triakum or any other editor will fol-
low my example, his success will be com-
plete.
Chariette.

Two Good Raspberries.
Though not among the newest of the
raspberries, yet there are probably many
who are not familiar with the excellencies of
the varieties that I will mention at this time.
Neither should they be called old varieties,
as they so far exceed such kinds that it would
be an injustice to them to place them in
the same class. Some years ago there
was a great stir among fruit growers at the
appearance of the Philadelphia raspberry. In
all parts of the country its praises were
spoken, but now other varieties excel it so
much in size and appearance as to place it
decidedly in the shade. One of its more
successful rivals is
THE HERSTINE.
Of the many fine varieties that are known
to fruit authorities there is hardly one that
can equal this in size and general appear-
ance. The berries are of a beautiful red
color, of the flavor and very large. They
are especially desirable for amateurs or
home use, and for near markets. They will
remain always command a good price, and
their bright color and large size prove very
enticing. The Herstine has become a great
favorite among those who wish a good table
fruit. I have found the plants to be quite
hardy—simply bending the canes to the
ground—being a sufficient protection. This
is much easier than covering, and seems to
answer equally as well, though the ther-
mometer has indicated 10 and even 20 de-
grees below zero. Where the winters are
less severe, even this treatment is not re-
quired.

Teaching Calves to Drink.
BY LEWIS E. HERRARD.
This article is written for the benefit of
those farmers, and their sons, who are trying
to raise calves, and especially for the benefit
of Editor Triakum of the Freeman, who lives
in quiet seclusion among the hills of old
Pondret. He has publicly expressed great
disgust at self instruction, and a great
lack of faith in any success in such kinds of
teaching. Now to begin with, I confess
that he has good ground for his doubts, but
good obstacles may be overcome without a
miracle. On my return from the classic
sanctum of the FARMER to the somewhat
less classic cow stable, I found in two wide-
awake, vigorous calves a chance for another
lesson in total depravity. That our success
might be complete, we let the calves run
with the cows two or three days that they
might become thoroughly familiar with the
natural sources and methods of "getting a
living." We began operations at night, that
started, might have time to gain its usual
equipoise during the slumbers of the night.
Laid a good stout bucket well nigh "Ruby,"
the honored mother of one of the two sub-
jects of our experiment, and went into the
"barn floor"—the place where every shift-
less farmer puts his calves—not without
some doubts whether we should soon be able
to say with the immortal Socrates, "veni, vidi,
vici." To lend dignity to the whole occasion
we had named the young pair, "Lady
Thornton," in honor of the family name of
the English minister plenipotentiary resi-
dent in Washington for whom, as a British-
born subject I have good degree of respect,
—and "Bismarck" not that the calf has any
German blood in him, though his language
might indicate as much. I did it because
he showed some traits in common with the
policeman buried his forces in vain. Lady T.
is a beautiful intelligent-looking young miss
of a calf, of good size, well proportioned,
and a pair of eyes wide apart and charmingly
doe-like and winning. Backing her into a
three-sided corner,—most corners will often
manage to wiggle out, but this one had three
sides, and putting her neck into the stanch-
ions formed by my knees, holding the pail
half-full of milk in my left hand, I put into
her delicate, sweet-looking mouth the two
middle fingers of my right hand, gradually
lowering her head into the pail, and very
soon I not only felt the milk passing up
between my fingers, but received other proofs
of her delight. A few times she took her
head from the pail, and gradually I moved
my fingers and the first time trying I found
she would drink alone. I was elated—total
depravity was a myth—calves were born to
drink from a pail, and I soon had Bismarck
in Lady T's place when lo, total depravity
cropped right out as big woodcock. My
dirt of mind strength and great perseverance
I got his head properly into the pail, but he
took it out most improperly and more than
once too. There is one thing I would never
do to a man trying to teach such a calf as
Bismarck—I would never call his attention
to the Ten Commandments, as he might not
be in a suitable frame of mind to consider
them with due solemnity so desirable.
The night did not seem for me the equi-
librium which I hoped for, and having a
hankering after a little more sleep, I left
them to the care of faithful Johnnie, who
reported Lady T. as good as ever, and Bis-
marck the same stubborn fellow as he was
night before. All this was a painful shock
to my nerves—in spite of some of my philo-
sophy in a most ruthless manner, for it has
been a most tenacious held theory that
more depravity belonged to the gentler sex
than inebriety in my own. But here was Bis-
marck with a bad heart, doubtless, but I
would not let that put me off. I would not
be a minute or less—instantly on having full
grasp of my fingers, and would not swallow
a drop without them. I reasoned with him,
but in vain; I told him, as pathetically as I
could, that he must do better or he would go
to the shambles, but what cared he for the
shambles so long as he could hit my fingers
and butt his head into a pail of milk: I
threatened to leave him, but with a snarl
he dripping with milk he was not so easily
"alone in his glory," as my beaming friend
and pants soon bore witness, and finally I

pleas'd, he receives for a reply "we've all
been busy and no time has been lost." The
reply may be true as the help look on the
case, but had the employer been present one-
third more work would have been done, and
the help would not have been overworked in
the least. It is the loss of minutes that
causes losswork to be done than could have
been easily accomplished. One stopping here
and another there; a year to be spent by A.
to which all must listen, and if the sun is
hot, get into the shade and lo! for half an
hour, and in numerous ways to pass off the
time.
Nor are but few hired men trusty in other
respects. Teams are used harshly and im-
properly fed upon the eyes of the owner is
constantly on them, which cannot always be
the case. The great want of farmers is
trusty help, and the lack of such hands often
makes farming up-hill work. One man hires
a tramp that comes along and he knows but
little about driving cattle, and the farmer
sells him the milk to get a few dollars for
himself around a piece he contemplates
ploughing up and planting to corn; the cattle
run off and coming in contact with a tree
one of the oxen is killed; a loss of fifty
dollars just in the busiest time when he
needs them so much and he has to purchase
another yoke at an exorbitant price; and this
tramp like older so well he would keep
drunk half of his time; the farmer forbids
him the cider, he flares up and quits; in a
few weeks his splendid barn is burnt one
night; cause unknown.

Liquid Manures.
Manure in a liquid state is the most ben-
eficial manner of applying it, when immedi-
ate results are required. Containing as it
does the fertilizing principles in a liquid
condition, it is more readily absorbed by the
feeding roots of the plants. It can also be
applied at all stages of the plant's growth,
which often cannot be done with solid ma-
nure; and some plants which are not in a
condition for being much stimulated in the
earlier stages of their growth can more read-
ily receive it. In the building of a house,
when in a liquid form. For instance, peach
tree grown in pots or beds under glass, if
heavily manured with ammoniacal fertilizers
early in the season, and the plants are started
into growth as at the time they are started
into growth—the most critical period of their
growth—but if applied after this stage, it is
of the greatest benefit to them, increasing the
size of the fruit.
Farmers who allow the liquid part of their
manure to go to waste, lose the most ben-
eficial part of it, as ammonia is produced in
the most abundance in the liquid part.
The urine of cows, horses and swine, together
with the drainings of their droppings, if al-
lowed to run into a tank, then pumped on
the manure heap or compost heap, and then
applied as a surface manure on the grass,
will produce very beneficial results. The
urine of the leading farmers in Scotland utilize
all the urine and drainings of their barnyards
in this manner. It is conveyed from the
stables into a large tank, into which they
put a pump. Near by they collect into a
barrel a barrel of water and allow the cow
cleanings they see secure upon their farms,
and then pump into it the contents of the
tank, conveying it to different parts of the
manure heap or compost heap, and then
applied as a surface manure on the grass.
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applied as a surface manure on the grass.

Poultry Houses.
These should be built with an eye more to
the comfort of the birds intended to occupy
them, and adapted to the locality and situa-
tion rather than with an idea of producing
a showy or imposing building. A good
house, however, may be constructed of any
style, never yet produced a beneficial effect
upon the hens intended to occupy and to
defray the expense thereof. In the first
place, select a dry foundation, and one that
commands the sunshine all day long. This
is especially beneficial in winter cases. If
surrounded by shade trees it is all the
better for summer, only the trees should be
so situated as to hold the dampness.
Dampness does not agree with fowls any
more than it does with human beings. They
can endure a dry, cold atmosphere better
than a warm, damp one. Even the combed
varieties will stand a low temperature if ac-
customed to it gradually as the cool season
comes on in the fall. Approaching by de-
grees from the fall to cold, they become habituated
to it, and it does not injure them, but if the
winter is not by all means well. This is more
apt to be the case with the later broods.
The heat develops the comb of both cocks
and hens. The combed varieties will winter
well in rather an open, sunless house, if habi-
tuated, as I said before, by degrees; but
generally, and the variety of the comb
and summer layers, but we require winter
eggs, as they are in that season not only a
luxury to our tables but are also very re-
munerative. For this we find it necessary
to prepare and give our layers sunny build-
ings.
The buildings, or rather the foundations,
should have proper drainage. The position
may be dry in the summer, but it is the thaw-
ing of the winter and spring shows that we
must guard against. There is nothing that
will produce roup sooner than a damp ground
or board floor upon which the rays of the sun
daily pour with a stifling heat at noonday.
There is a moisture arising therefrom that is
sickening both to fowls and their attendants.
Besides, oftentimes the temperature sinks be-
low freezing in these buildings before morn-
ing, even when the day before a summer heat
reigned therein. This moisture is congealed
on the ceilings and walls of the buildings to
again be evaporated through their breathing
spaces. There should be ample ventilators,
either in the roof of the building, arranged so
that they can be closed at night, or if the
windows are in the slope of the roof they
should be fixed to close down at the top.
This admits the fresh, pure air, that drives
out the dead, stagnant vapor, and thus the
atmosphere is kept in a healthy condition.
The building should have a dry, airy situa-
tion, with a gravelled or cemented floor, and
this should be well sprinkled with dry wood
ashes, or air-slaked lime. The ashes from
coals are not at all suitable to sprinkle on the
flooring, as when they come collect mois-
ture, and when the day before a summer heat
reigned therein. This moisture is congealed
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Trusty Farm Help.
It is getting to be well understood that a
large majority of farm hands, at the present
day, take little interest in the success of
their employer beyond his ability to pay them
their monthly wages. One cause of this state
of things is the fact that they are less in-
clined to be contented in one place, than
used to be 20 or 30 years ago and the result
is, farmers are changing their help too often
for their own interest and the interest of
those they employ. It is almost impossible
for a farmer to find hands who will work
faithfully unless he is constantly with them.
To this fact many farmers can testify in
Vermont, as well as we here in New Hamp-
shire. The employer bringing away the hired
help take it easy, and when he returns and
says, "How is this? I expected you would
have done much more than you have accom-

plished," he receives for a reply "we've all
been busy and no time has been lost." The
reply may be true as the help look on the
case, but had the employer been present one-
third more work would have been done, and
the help would not have been overworked in
the least. It is the loss of minutes that
causes losswork to be done than could have
been easily accomplished. One stopping here
and another there; a year to be spent by A.
to which all must listen, and if the sun is
hot, get into the shade and lo! for half an
hour, and in numerous ways to pass off the
time.
Nor are but few hired men trusty in other
respects. Teams are used harshly and im-
properly fed upon the eyes of the owner is
constantly on them, which cannot always be
the case. The great want of farmers is
trusty help, and the lack of such hands often
makes farming up-hill work. One man hires
a tramp that comes along and he knows but
little about driving cattle, and the farmer
sells him the milk to get a few dollars for
himself around a piece he contemplates
ploughing up and planting to corn; the cattle
run off and coming in contact with a tree
one of the oxen is killed; a loss of fifty
dollars just in the busiest time when he
needs them so much and he has to purchase
another yoke at an exorbitant price; and this
tramp like older so well he would keep
drunk half of his time; the farmer forbids
him the cider, he flares up and quits; in a
few weeks his splendid barn is burnt one
night; cause unknown.

The Potato as Food.
The potato is by far the most important
of plants cultivated for their roots, since it is
easily grown and kept, easily cooked and di-
gested. Potatoes have become an article of
general consumption, and the loss of one crop
would create greater distress and discomfort
than a potato famine. Less nourishing than
bread, yet important as an accompaniment to
meat and fish, they are deficient in fat and
contain but twenty-five per cent solid mat-
ter. They differ materially in value, owing to var-
iations in quality, soil and season, but the
average tuber contains seventy-five per cent
of water, three per cent of flesh former, two-
tenths of one per cent of fat, about eighteen
per cent of starch, and over three per cent
sugar. It requires two and one-half pounds
of potatoes to equal one pound of bread in
carbon, and more than three and one-half
pounds to one pound in nitrogen, yet potato
at sixty cents a bushel form a cheaper
diet than flour at eight dollars a barrel. In
Ireland potatoes and buttermilk are the prin-
cipal food, the average laborer consuming of
the former ten pounds daily. In Holland,
boiled in fat with other vegetables, they form
the ordinary part of the working classes,
who seldom eat meat more than once a day
in the week. Science teaches that the best
proportion of food for the common wants of
man is about eight per cent of fat mat-
ter, twenty-two per cent of starch-formers and
sixty-two per cent of starch and sugar;
hence, with the addition of a little milk or
butter, potatoes are capable of sustaining life
and activity.

The relative value of potatoes is deter-
mined in general by their scientific gravity,