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This is the shop
At which you stop.
To get your sweets,
While parading the streets,
At all times.

This is the shop
Where thousands stop
To get a drink,
That makes them think
'Tis excellent.

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It will be to your advantage to consult
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DUNEDIN.

Highest Prices. Prompt Returns.

Results Count Every Time.

Pasture Notes.

Experiments and new ideas carried out
with enthusiasm will give a new impetus
to work, will lift a man's farming out
of the ordinary rut, and give him some-
thing better to live for.

Two reasons for keeping down weeds.
They deprive crops of moisture, and
draw on the soil food that crops need.
In other words, weeds rob crops of food
and drink.

The importance of a supply of pure
water for all kinds of live stock, more
especially dairy cattle, cannot be over-
estimated, and when selecting a dairy
farm this question should receive most
particular attention. Without an un-
polluted water supply, it would be im-
possible to preserve young and old stock
alike in a perfect state of health.

Within one month recently four
American Guernsey cows, owned by W.
Marsh, Waterloo, Ia., made records as
the leaders in the respective classes.
Imp. Prospect's Rose des Houardes pro-
duced 13,157lb of milk, and 726lb of
butterfat. Lillia of Iowa 2nd produced
14,239lb of milk, and 773lb of butterfat.
Lily of the Prairie, has a record of
11,661lb of milk, and 620lb of butterfat.
Imp. Ladock Jenny's record is 15,453lb
of milk, and 809lb of butterfat.

The ordinary bad-tempered bull seldom
does harm other than irritating men's
nerves and keeping the womenfolk
anxious; but the quiet, docile, "kind as
a kitten" bull is the one to keep an
eye on. Years may pass without any-
thing happening to injure his reputa-
tion, but all the while he may be waiting
his chance. Every bull should be handled
and managed at all times as though he
were known to be dangerous. He is dan-
gerous, whether he has shown symptoms
of it or not, and some day may make
the fact sorrowfully manifest.

Some interesting figures are noted on
the economic results of land drainage in
various parts of the Continent of Europe.
The average increased returns from
drainage are shown in the reports from
twenty-two estates in Germany for the
ten years ending in 1914, as:—Rye, 37
per cent; oats, 42; wheat, 30; potatoes,
50, and in the thirty years, 1887-1917,
the average increase in yields are shown
by an Austrian Land Commission as fol-
lows:—Cereals, 803lb an acre; potatoes,
2577lb; roots, 11,600lb; hay, 223lb,
straw, 1249lb.

The cost of farm seed, at present
prices, is a serious item of expense. Some
of this may be avoided—turnip seed, for
instance, is comparatively simple to save.
A selection should be made of well-grown
roots. These should be lifted when they
are about matured and replanted in a
protected situation. July is a favourable
month for this transplantation. The
plants should not be close than twelve
inches apart and the rows twenty-four
inches. The roots should be planted
fairly deeply. It is also desirable to
provide some protection from small
birds. As turnips hybridise freely, the
selection should be confined to a single
variety.

Investigations and a series of experi-
ments very definitely prove that the
quality of a pasture is not primarily de-
pendent on its botanical composition,
though, as a rule, the presence of white
clover and other leguminosae is gener-
ally indicative of high feeding value.
That poor pastures, especially on clay
soil, can be rapidly and profitably im-
proved by the use of phosphates, espe-
cially basic slag. That, as a rule, phos-
phates alone are sufficient to effect and
maintain the improvement, and that, of
supplementary substances, potash and
lime are worthy of attention. That the
improvement of poor pasture is very
dependent on the presence of lugu-
minosae, and especially of white clover.
That renovating with the seed of wild
white clover may, in the absence of
natural leguminosae, be a necessary
operation. That nitrogen, when added
to phosphates for pasture, is unneces-
sary and frequently detrimental. That
in the case of hay or permanent grass
land, equal weights of produce may have
very different feeding values. That few
forms of agricultural expenditure are
more certain in their results on grass land,
and that the meat and milk producing
capacity of the country can be largely
and rapidly increased with great pecu-
niary gain to the farmer, with advan-
tage to the nation.

In Berlin, Professor Voss found the
maximum speed of pigeons 100 feet per
second.

GARDEN NOTES.

THE COOL GREENHOUSE.

Calceolaria plants from last year's sow-
ing will begin to move, and should be
shifted into their flowering pots before the
buds show. The 8in size is a useful one,
and large enough for them. The compost
should be prepared some days before use,
and should consist of good rich and, above
all, porous material, such as two parts
turfy loam, one of very old manure, one
leaf mould, and one of sand, with a hand-
ful of soot and a good dusting of bone
meal, well mixed.

Fuchsias.—Old plants from last year
that have been stored away for the winter
will soon be moving into growth again, if
they have not already done so. As soon
as this takes place they should be taken to
the potting bench and carefully turned
out of their pots, shaking out all the soil
from the roots, and lightly trimming them
at the same time. Repot into clean pots,
giving rich material, for the fuchsia is a
hungry plant, and must have rich soil if
good results are to be obtained. Repot
into the same size pot as the one they
came out of, so that they may be potted
on again for flowering. Pruning back of
the old wood on these plants is necessary,
and should be done at this potting.
Shorten back to about the second joint on
each small side branch, and take a small
piece off the top, and as soon as the
young shoots have made four eyes pinch
out the points to cause fresh growth.
This stopping may be continued until the
desired size of the plant is obtained, then
leave them to flower at will. To grow
really fine specimens, say, from 4ft up-
wards, they must have large pots to
flower in. From 10in to 12in pots are
necessary to obtain plants of size. They
will require plenty of warmth and mois-
ture, and partial shading from the hot
sun.

Maidenhair ferns that are commencing
to throw up their young fronds should be
re-potted, and all the old brown and dead
fronds removed. The proper material for
maidenhair ferns is equal parts turfy
loam, leaf, soil, and clean, sharp sand,
giving plenty of drainage.

This is a good time for the repotting
of most ferns, as active growth commences
in the spring. For most varieties of
ferns a good open material is required,
with less leaf mould than with the maiden-
hair. Turfy loam and peat in equal parts,
with some leaf soil and plenty of sharp
sand and charcoal, well mixed and not too
fine, will grow most kinds to perfection,
but there are special and individual cases
that require different and special treat-
ment as well as different material.

SPRAYING.

However small a garden, its owner is
sure to be troubled more or less by some
of the many common pests which, if left
unmolested, will quickly ruin choice plants
and trees, and this is a very good time—
in fact, from now on for the next two or
three weeks I consider the best of all times
—for this operation. No doubt the best
time is immediately before the buds burst,
so one must be guided by the condition of
his trees, whether in an early or late posi-
tion.

To the sucking insects belong the
aphides, and the green, black, and brown
flies, which attack nearly every kind of
fruit and rose tree in the summer months.
For these pests there is nothing better, to
my mind, for outdoor plants than emul-
sion. Boil one quart of kerosene and 1lb
of soft soap in a little water in an old
saucepan, skim off the fatty material on
the surface as it boils, dilute with 6 gallons
of water, and stir well. It will then be
ready for use.

Woolly aphis (American blight) is de-
stroyed by spraying with caustic alkali
wash. Formula: Dissolve separately 1lb
of ground caustic soda and 1lb of crude
potash, pour both into 10gal of water, add
1lb of treacle, and stir well. When using
this put on old clothes and gloves, as it is
of rather a burning nature. It is very
effective, and good for destroying mossy
growth, red spider scale, and eggs of
moths.

Mealy bug is generally found in bot-
tom houses on stove plants and in vineries.
It makes sad havoc in the latter case if it
once gets a hold. For hothouse plants
spray well with the above emulsion, and
fumigate occasionally with nicotine. For
vines, scrape off all old bark, and paint
well in with a stiff brush.

Thrips are small insects infesting azaleas
and many other greenhouse plants. The
frequent use of the syringe is the best
preventive of this. For small plants, dip
them head downwards in a bucket contain-
ing some of the above emulsion, or fumi-
gate with nicotine; this is a grand
remedy for green fly and other insects
that frequent greenhouse plants.

For caterpillars, spray with paris green
or arsenate of lead. With the latter use

one teaspoonful in a gallon of water.
Where the caterpillars have a hold, and
are curled up in the leaves, hand-picking
is the only way to dispose of them.

SCIENCE NOTES.

SUN AS A SOURCE OF POWER.

In a recent paper on this subject, Mr
C. Le Roy Meisinger records that in cer-
tain subtropical regions, where coal is
scarce, such as Egypt, the Punjab, and
the Karoo of South Africa, teakwood
boxes, blackened within, fitted with glass
tops and properly insulated, have been
found to register from 240 to 275 deg.
Fahr, in the middle of the day, and, with
the addition of an auxiliary mirror, to
reach even 320 deg. These boxes are used
as ovens for cooking, as well as for many
other purposes.

LABORATORY ACCURACY.

The accuracy of calibrated glassware, of
hydrometers, thermometers, weights, and
other items of laboratory equipment, as
well as the chemicals and reagents em-
ployed, is at the very basis of our scienti-
fic work, and it is therefore very impor-
tant that the effort to assist in perfecting
these standard materials should be en-
couraged. It is believed that a service
can be rendered both to the manufac-
turers and the scientists through proper
standardisation, and this can be effected
through the co-operation of makers and
users. That such a movement is impor-
tant is shown by steps that are being
taken both in Germany and England to
standardise chemical apparatus and glass-
ware.

PLANT PATHOLOGY.

The science of plant pathology or the
investigation and control of diseases of
plants, particularly those caused by
fungi, has been pushed forward of late
with the greatest rapidity in the United
States. Experts have co-operated very
closely in the endeavour to save as much
as possible of every crop from the ravages
of disease. One party of American path-
ologists met for the purpose of studying
potato diseases. Tours into important
potato-growing areas were arranged, and
the best methods for the control of the
various diseases were discussed. Visits
were also made by other parties to the
largest green houses in America, and to
the tobacco-growing regions, where much
useful investigation work was carried out.

AN ENGINEERING FEAT.

What engineers consider to be one of
the greatest feats of the age was accom-
plished by a Chicago engineer, when his
organisation moved a reinforced concrete
building a distance of 450 feet to make
room for a new, large office building. The
structure moved is three storeys high and
is occupied as an office building. It was
a question of either tearing it down or
moving it. Inasmuch as it was practi-
cally new, the razing of it was considered
almost shameful, so its removal was de-
cided upon. The proposed site required
the crossing of a street on which a car
line travelled. This necessitated the cut-
ting of trolley wires and telephone cables.
During the entire period of moving—six
days—business was not suspended a min-
ute; telephone communication was un-
interrupted and business continued as usual.
Three electric motors were pressed into
service for the task. The building meas-
ures 60 by 95 feet and weighs approxi-
mately 3000 tons unoccupied.

SOLDIERS GRAVES.

The design for the headstone that is
to be erected over the graves of New
Zealand soldiers who died during the war
has been approved by Cabinet. The
High Commissioner inspected some head-
stones after his arrival in Great Britain,
and it is on his recommendation that
Cabinet has reached a decision. The
approved headstone is a cross 30in high by
15in wide. The circle at the centre con-
tains the inscription "New Zealand," sur-
mounted by a fern leaf. The name, rank,
and regiment of the soldier will be inscrib-
ed on the cross. The High Commissioner
is sending a specimen of the cross to New
Zealand. A draft design that has been
received suggest that provision will be
made for the inscription to be provided
by the relatives; but this point is not
quite clear yet.

Latest figures obtained by the federal
bureau of education, show that between
300,000 and 400,000 children in the Uni-
ted States last year were without school-
ing.

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