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TRAPPERS.—Please note I don't want
rabbitskins at present.

GARDEN NOTES

THE KITCHEN GARDEN.

Get in all kinds of winter greens, such
as broccoli of kinds. These are the kinds
that come in for cutting from late autumn
until late spring; also savoy, Brussels
sprouts, curlies, kale, and cabbage to
come in for cutting before any of the
former-named kinds. It must be borne
in mind that the planting season for the
above will not last much longer, so no
time should be lost in getting them in.
No better place can be got for them than
on ground where early potatoes have been
lifted. on no account should you plant
(or rather, replant) on ground which has
been previously cropped with the cabbage
or brassica of any kind, or assuredly the
latter will suffer thereby. Nothing brings
on club-root quicker than the frequent
planting of the brassicas on the same
ground. I have frequently pointed out
the advantages gained by the care-
ful attention to what is termed the rota-
tion of crops—that is, for the cabbage
family to follow on peas, beans, carrots,
and onions, but never after turnips. Now,
for this district this is quite late enough
for getting in the last sowing of peas,
and the dwarf early kinds should be
used for this late sowing. Sow for suc-
cession lettuce and radishes, also parsley
for winter use.

THE ROSE GARDEN.

Autumn-flowering roses now require a
liberal supply of liquid manure, and no
better time can be got than immediately
after rain. Where it is undesirable
to use liquid manure, good guano, liber-
ally used and well watered in, will make
an excellent substitute. Remove faded
flowers and seed capsules. Climbing roses
will now be making rapid growth by
pushing out strong shoots from the main
stem and base of the plants. If
these are not required for future training
—for instance, on a well-furnished arch
or pillar—remove them by cutting them
back to within a foot of the base, but on
no account remove them if room can pos-
sibly be found for them, as much finer
flowers and larger trusses are got from
this strong young season's growth than
from the old wood. Better to remove
all old, weak growth, and replace them
with the young and vigorous wood; in
fact, for low trellises it is better to re-
move all the old wood annually—that is,
if sufficient young wood is made to re-
place the old. The sooner after the flow-
ering season is over that this is done the
better, as every encouragement is thereby
given to the development and ripening of
those shoots. Under such conditions a
very fine show of bloom may be expected.

THE FLOWER GARDEN.

Gladiolas should now be making strong
growth. Where good large flowers for
show purposes are desired attention to
feeding with liquid manure and individual
staking and tying must be attended to.
When the flowers are beginning to show
colour shading should be given them. Some
growers go to a great deal of trouble when
growing for exhibition. For instance, in
shading some use the long glass-fronted
cardboard box and nail them on to stout
stakes, cut out one end. When the
flowering-spike begins to show colour this
box is carefully pushed down over the
flower, to steady the box. As the lower
flowers open a small piece of paper is
pasted over the glass at the bottom, to
act as a shade, and so on up to the top,
as the flowers open up the stem. As you
know, the lower flowers open first, and
if these were not shaded or protected in
some way, in all probability the lower
flowers would be done before the upper
ones were properly out; therefore they
would be spoilt for show purposes. Sweet
peas will be greatly benefited by
frequent waterings with liquid manure.
If a continuous blooming be desired, and
the seed is a secondary consideration,
then by all means remove the stems as
they go out of flower. By this means finer
flowers are obtained, and a longer period
of flowering also.

As the time for layering carnations is
round again, a word or two upon the sub-
ject will not be out of place. Generally
speaking the best time for layering carna-
tions is just as they are going off flowering.
In places where frost is severe carnations
should be in early, or they partly lift and
the soil opens up, to the injury of the
plants. If they are in early frost does
not have the same effect. Proceed, then
when ready, by surrounding the plants
with rich sandy or gritty loam; remove
any leaves which may be in the way at
the base of the young shoot; make a
cut with a sharp knife through a joint
upwards, and about halfway through the
stem; peg down firmly with small hooks
made of twigs off branches or with bent
wire; keep the soil moist by watering
occasionally if necessary.

MOTORIZING NOTES.

THE LIFE OF THE CAR.

The life of the average car is often
figured at three to five years, but as auto-
mobiles have gone into the hands of those
of smaller and smaller means, the average
annual mileage run has greatly diminished,
and the average life of cars measured in
years has correspondingly increased. The
smallness of the number of cars scrapped
in the typical year shows that the life of
the average car is eight years or more. In
1919, for example, the United States pro-
duced 1,974,016 cars and trucks, whereas
the gain in registration during the year
ended December 31 was only 1,434,909. Of
the remaining 539,107, exports represented
83,454, so that the balance of 455,653
doubtless represented the numbers of cars
and trucks worn out and scrapped. But
this 455,653 motor-vehicles was equivalent
to only 7 per cent. of the average number
in service for the year; so that if one
took 1919 as a guide, he would have to
reason that since only 7 per cent per an-
num are worn out, the life of the average
car is 14 years. However, the scrapping in
some years has run as high as 13, 14 or 12
per cent.; and taking recent experience as
a whole, it indicates an average of about
eight years.

THE MOTOR CYCLE'S FUTURE.

Now that the former British and Ger-
man motor-car owner has to be content
with the more modest motor-cycle, we
may look for a considerable development
along the lines of general utility and
cheapness, says a writer in a British tech-
nical review. Before the war the tendency
of the motor-cycle, under American influ-
ence, was towards increased weight and
horse-power, and consequently complexity.
Now, however, the chief considerations
are safety, lightness, and simplicity to
meet the requirements of the average man,
who wants a cycle that will start up with-
out causing him undue exertion, that can
be lifted up and down steps, and is not
prohibitive in price or upkeep. The lines
on which improvements should proceed
are, above all, towards simplification and
comfort. The belt drive, a fruitful cause
of breakdown, must be eliminated, the
various parts simplified and their number
reduced, the lighting system should be
made as elementary as possible, and all
complicated control on the handle-bars
suppressed. Special care must be given to
the brakes, and the saddle should be made
adjustable to the rider's comfort. Another
paramount necessity is that wheels should
be made easily removable, in view of ren-
dering the repair of punctured tyres as
simple a matter as possible, and there is
plenty of scope for improvement in the
tyres themselves. High speed is not re-
quired, therefore the engine can, and
should, be as light as is compatible with
reliability. The development of the motor-
cycle as the plain man's vehicle also pro-
mises a future for the auto-wheel and
motor-scooter.

SILENCERS THAT CHOKE UP.

There is one source of overheating and
loss of power that is frequently overlooked
and it is assumed that the cause is either
weak mixture or incorrect ignition tim-
ing. In many cases it is not suspected
that the silencer may be severely thro-
ttled by partly burnt carbon which very
gradually restricts the area of the holes
in the baffle plates. Every car owner who
is anxious about keeping his car at the
highest pitch of efficiency should make a
point when he takes delivery of the car
of finding out the construction and
method of taking down the silencer. Some
manufacturers, unfortunately, do not pay
any particular regard to the accessibility
of the silencer, though it is a fitting that
needs some attention at least once in
3,000 miles, if undue back pressure is to
be avoided, in fact, it may be said that
2,000 miles is as far as an average sil-
encer should be run without attention, if
it be made on the drilled baffle plate
principle. There are, however, other
principles by means of which choking up
and throttling are greatly reduced, hence
the advisability of finding out how the
silencer is made. That much-abused de-
vice, the exhaust cut-out, is quite a use-
ful attachment for testing a silencer from
time to time. Ordinarily when a sil-
encer is in good condition the opening
of the cut-out should make no difference
to the speed, but in proportion as the
silencer is throttled the speed will be in-
creased. It has been suggested that a
small pressure gauge permanently con-
nected to the silencer would be useful, as
thereby any serious increase in pressure
would at once call attention to the fact
that the silencer required cleaning.

SCIENCE NOTES.

WIRELESS RESEARCH IN INDIA.

Upon completion of the research work,
which is being done in India by a staff
of scientists in order to find means of over-
coming the meteorological obstacles which
interfere with the proper working of wire-
less telegraphy in India during certain
seasons of the year, there will be a great
extension of the wireless system in that
country.

THE MODERN UPAS TREE.

Sir Ray Lankester, in his popular
science notes, has made us familiar with
the deadly nature of that particular
creeping known as the modern upas tree,
which has been shown to be the cause
of many hitherto mysterious illnesses in
persons living where this creeper grew.
The plant is a species of Rhus, and is
known in America as the "poison ivy."
As in many popular names, the plant
neither resembles nor is related to the
plant after which it is named. Many
people regard themselves as immune to
the influence of this homely-looking plant,
and Drs Sweet and Grant, of the Public
Health Service, U.S.A., have investi-
gated such cases. The conclusion appar-
ently is that no one is really immune, but
that there are varying degrees of sus-
ceptibility to its poisonous influence. A
man may resist it many times, and then
fall an easy victim; many persons not
affected by the leaves are powerfully in-
fluenced by the smoke of the burning
plant; this smoke contains a high propor-
tion of the toxic principle. Other persons
who do not appear to be affected by the
poison ivy are so affected by a related
plant, the poison sumac (Rhus vernix).
These plants are most deadly in the
spring and summer months.

JAW STRENGTH.

It is quite easy to understand that
men must give careful attention to what
is called the "crushing strength" of rocks,
timbers, and other materials used in big
constructional work. It is less easy to
believe that similar attention must be
given to the materials used for the fillings
of tooth cavities. The "amalgam" used
for such dental work is composed of from
half to two-thirds of silver, a small
amount of zinc, and the remainder cop-
per and tin. This material has to
stand quite considerable pressures when
the teeth are engaged in such heavy work
as the chewing of steak. In what is called
by the Americans "rapid fire-eating,"
i.e., when the crushing load is constant,
the pressure exerted on teeth-filling may
be equivalent to over 22,000lb per square
inch. That excellent institution the
United States Bureau of Standards there-
fore gives careful attention to the crush-
ing strength of the different amalgams
used by dentists. The effect of ice
water and of hot foods on the amalgam is
also noted, and is found to be harmless in
general; however, such high temperature
as 80 deg. centigrade (17 F. may be pro-
ductive of much harm, and may quite al-
ter the characteristics of the amalgam
fillings.

AMERICAN SEAWEED INDUSTRY.

Agar-agar, that valuable aid to medical
science and important food adjunct for
the supply of which the world hereto-
fore has relied solely upon the Orient,
is about to be extensively manufactured
in the United States. An American com-
pany already is turning out a third of
a ton daily in a finely-equipped plant at
Glendale, a suburb of Los Angeles, Cali-
fornia, and steadily will increase its
capacity. Japan has enjoyed a monopoly
in agar-agar, and last year the United
States imported 240 tons from there, and
Great Britain and other European coun-
tries much more. Consumption is heavily
increasing although the public generally
has never heard of the name. It is a
gelatine-like derivative of seaweeds and
meets wants which nothing else can. In
Japan but 10 species of the marine algae
required are found. Two years' diligent
research disclosed that fifteen species of
superior quality grow in comparative
abundance along the southern California
coast. Agar-agar long has been esteemed
there as a food, and as such it appeals
more and more everywhere. It is a
wholesome and delicious thickener in jellies
of all sorts, fruit, meat or fish. It is
particularly beneficial mixed with any
ordinary cereal or breakfast foods with
the addition of sugar or salt. The major
demand, however, is from hospitals,
laboratories, and the medical profession.
The peculiar substance has no equal as
a culture media for bacteria, retaining
its solidity, unlike gelatine, at the requi-
site temperatures, and thus proving indis-
pensable to bacteriological research and
segregation. During the war it figured
successfully in the healing of certain
wounds.

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