

FOUNDED 1866

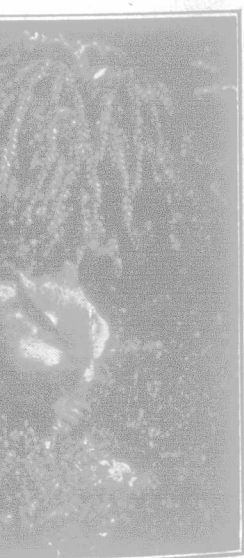
up in a passion, kicks
athes, grabs his property
it this way, then that,
presently hoists it into
tearing away in an
ation; comes to a weed;
him to go around it, he
and he does climb it
thless property to the
up there he finds that
place; takes a cursory
nery, and either climbs
down, and starts off
ual in a new direction.
our he fetches up within
place he started from
den down. He meets
him about nothing,
f in a different direction
find something that is
o afford entertainment
ime valueless enough to
to own it."

in the above passage, in
humorous manner, thus
apparent waste of energy
individual ant. But if
individual to the colony
y of these insects has
or mankind. We find
vision of labor, and the
adopted this principle,
the basic factors in the
man civilization, while
still his own butcher,
and jack-of-all-trades.
d that the ants are the
insects in the world to-
y owe this dominance
he organization of their
the fact that each
not only for its own
ut for the general good
ony. Here we have a
as yet been only partly
nd. If this lesson had
learned, we should not
ernational wars, but no
ife between those who
ads and those who work
such as is the curse of
y, but each would be
little bit for the general
man race.

the value of co-operation
ne wolves, fierce and
though they are,
united efforts of several
accomplish that which is
single individual is well
nes:—

ong of the wolf
forward and back.
the pack is the wolf
of the wolf is the pack."

parasites among animals
a very salutary lesson.
anisms are degenerates
which they belong. They

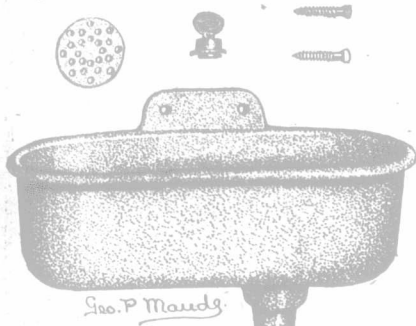


Chipmunk.

and with seeds to be stored
a time of need.

often nearly all, of their
consequently have lost
motion. Their nervous
ular exhibit marked de-
since it is the nervous
to do with all reception
onse to stimuli, feeling
evident that the psychic
sites is much lower than
animals in the class to
g. As it is among ani-
ong man, the "sponge,"
ho is always depending
e, loses his higher at-

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er's Advocate.

tribe of ants, and their powers
show against man.

Many of the insects, it is
derived from the building up of food, while
it is abundant to the colony against a time
of scarcity are to be drawn from abroad.
Thus we find the Red Squirrel exceedingly
busy in the late autumn, early autumn
carrying large loads of fruits and seeds
in its cheek-pouches and storing them in
chambers off its underground domicile.
We see the Red Squirrel hoarding up
nuts and seeds in holes in stumps and
trees. The Red Squirrel, too, was the
originator of the method of dehydration
of fleshy or juicy articles of food, and this
species adopted the habit of hanging
fleshy fungi in the forks of trees, where in
the wind and sun they dried without
molding, long before the modern methods
of dehydration came into vogue or before
the long strings of pieces of apples were
suspended from the beams of the old-
fashioned kitchen. The ants also, and
the bees of some species, developed the
"community kitchen" long before such
an institution was adopted by man, the
workers storing up supplies of food for
the future use of the colony.

The method of maceration of wood-
fibres in the manufacture of paper is of
very recent origin with man, but is a
very ancient process among some species
of wasps. Such wasps as the White-
faced Hornet and the Common Yellow-
jacket, which build the large paper nests



Nest of the Common Yellow Jacket.
The original paper makers.

that we find suspended from the branches
of trees and shrubs were the original
paper-makers. The paper of which these
nests are constructed is made from
weather-beaten wood, or from the hard
fibres of dry plant stems, pieces of which
the insects pull off with their mandibles
and reduce to a pulp by mixing with
saliva and by thorough mastication.
The layers of paper are built up by the
worker applying a pellet of pulp to the
edge of the sheet, pressing it firmly down
with the front legs, walking backwards
pressing out the pellet in the form of a
string along the edge, then running for-
ward and returning along the string of
pulp and drawing it through the mandib-
les. This latter process is repeated two
or three times until the string is flattened
into a ribbon which, on drying, becomes
indistinguishable from the rest of the
sheet. Not only do these insects thus
build up thin sheets of paper, but they also
construct combs, and pedicels connecting
the layers of combs, from the same ma-
terial; thus they anticipated the manu-
facture of papier-mâché, which has in
comparatively recent years become popu-
lar in the manufacture of pails, wash-tubs
and other articles for domestic use.

Just as some wasps were the original
paper-makers, so others were the first
potters and masons. The Potter-wasp,
which is not uncommon in some parts of
Canada, makes little jugs of clay which
she attaches to the stems and leaves of
plants and in which she deposits her
eggs, along with a supply of food for the
larvae which hatch from these eggs.
The Blue-black Mud-dauber and other
mason-wasps build little "apartment
houses" of clay for a similar purpose.
Man has lately developed the method of
cold-storage for the preservation of
perishable food, but the wasps mentioned
in the preceding paragraph, and other



DREAMING?

Have you ever paused from your work
for a few moments and day-dreamed?
Have you ever thought of the BIG
OUTER WORLD with its business
activities—its various occupations—its
professional pursuits?

Have you ever wished or dreamed you
were filling your niche in this BIG
BUSTLING WORLD—helping to do
the big things—to earn the big incomes?

Many of your friends—your neighbors—
your acquaintances have stepped out.
They have left the farm, the village, the
town behind—they are in the cities,
filling big positions, earning recognition,
and receiving big salaries.

Look down yonder to Ottawa—you see
there filling the Premier's Chair, a
farmer's son.

Look yonder to Toronto—you see there
filling the Premier's Chair another
farmer's son.

Look yonder to our large cities—see
that Lawyer—see that doctor—that
minister—that big business manager—
the owner of that factory—

Look too at that successful writer—that
well-known artist—the head of that
advertising agency—or that \$10,000-a-
year salesman.

These men were at one time farm-ers
sons.

They, too, had their day-dreams.

They, too, felt the thrill of ambition.

They stepped to the door of their
limited sphere and looked out upon the
big world of opportunities.

HOW DID THEY DO IT—YOU
ASK? PREPARATION my boy. Do
you remember what Lincoln said?
Here it is: "I will study and get ready
and maybe my chance will come."
It came, but it found Lincoln ready.

Don't go on dreaming.

Don't be a wisher.

Be a winner.

A few months of your spare time de-
voted to one of our practical courses
will prepare you to take your place in
the world.

Are you game? Then look over the
coupon below—select your course—un-
derline it—mail this coupon to-day and
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