

THE WASP IS DESCRIBED AS THE FIRST PAPERMAKER AND GAVE MAN THE RIGHT IDEA

(By Prof. John Furbay in
Forest and Outdoors)

A few hundred years ago there were no libraries filled with books. There were no daily newspapers printed in twenty-page editions for two cents.

There were no beautiful boxes of stationery on which to write to one's friends. There were no paper sacks for groceries; and no beautiful prints of wall paper. People scrawled messages in the sand on stones, and later on animal hides, which had been tanned. Paper seemed unknown to all living things except the humble little wasp.

It was from these little insects that man got his idea of making paper from wood. He had often observed the large paper nests which they had made in the trees. He had noticed that the wasps made countless trips to and from the decayed trees. It was apparent that these repeated trips were making the nests grow larger and larger. The decayed wood was being carried in their mouths, he said, and after being mixed with the juice of the mouth, was being plastered in position on the nest where it quickly dried into tough gray paper.

The next problem was to see what this juice was like which the wasp mixed with the chewed-up wood. After years of experimenting he succeeded in finding a substitute for the wasp's saliva and paper of a crude sort was made. As far as we know, the Chinese were the first to make paper from wood pulp or other vegetable material. Records show that the process was known among them two or three centuries before Christ. Strangely enough they have improved their methods very little since then.

It is believed—that the Saracents first brought paper making into the Western world. The first paper mill in Europe was built by them in Spain. Paper making began in France about 1189; in Germany about 1380; and in England about 1330. The first paper mill on the American Continent was built in Philadelphia by William Rittenhouse in 1690.

Related to Bees

Wasps are closely related to bees. They build combs which resembles those of bees, and they live in colonies. There are two groups of wasps: solitary wasps such as the common mud-daubers; and social wasps are the hornet and yellow jacket.

Early in the spring the female wasp (queen) crawls out of her winter hiding-place. She immediately gathers some wood scrapings from some tree, post or log, and builds a single six-sided cell. In it she lays one egg. She proceeds to add more cells to lay more eggs until the egg start hatching. Then she collects insects or honey to feed the newly hatched wasps (larvae). As soon as the young are old enough to leave the nest they do a strange thing. Instead of sailing forth into the world to have a career of their own, as do flies or grasshoppers, they stay with the nest, gathering food for other newly-hatched wasps, and bringing new woodpulp to enlarge the nest.

In this way a large colony of wasps may be built up during a summer. The

nests are often a foot or more in diameter. It is not uncommon to see these large, gray, paper-like bags hanging from the trees in nearly any part of the world. They are most abundant in warm climates. Old Indian hunters used to believe that the height of these nests above the ground indicated whether the coming winter would be severe or mild. Many hunter-stoday still think there is some truth in the old belief.

Near the end of the summer some of the baby wasps are fed very rich food, and they develop into the new queens (females) and drones (males). Those wasps hatched earlier in the season were females also but were not developed sufficiently to lay eggs. The new queens and drones immediately leave the nest and mate in the air. The drone then dies and the queen finds a hiding place where she may spend the winter in safety. She never returns to the old nest.

After the queens and drones all have left the nest, the other wasps (workers) also leave the nest and die when the frost comes. Only the queens live through the winter. They can be found sometimes under leaves during the winter. After the first heavy frosts have come, the nests can be approached safely, for they are quite sure to be abandoned. They will never be occupied again, for the queens will build new ones when they emerge the following spring.

Wasps do not store any food. Some honey is made for feeding the young wasps, but it is never stored in the nest. They seem to live only for the pure joy of living. They remind us of the words of Burroughs who said that the game of life itself is worth all the trouble and pain it takes to play it. They work all summer building a nest which they will never live in; yet how happy they seem to be while doing it. And, after all, our own lives are not so very difficult.

THE DEAL THING

(New York Sun)

The convictions of witchburning theologians of the middle ages are still extant, in no less surprising quarters than a Brooklyn public school. Miss A., the school teacher friend of the Woman, was the recipient of a shocked report from several of Harold's classmates. "Oh, Miss A., Harold is so bad. He ran after an old woman and threw stones at her and called her a witch."

Harold, upon hearing this charge, indignantly denied it. "Why, Miss A., it's a lie," he asserted. "I wouldn't do that to an old woman. I wouldn't call any old woman a witch."

"But why do these children say you did?" asked Miss A. "Why, Miss A., it wasn't on old woman I threw stones at and called after." Harold looked at Miss A., with the clear-eyed confidence of one who has acted according to his convictions. "She wasn't an old woman. She was a witch."

THE SUPERVISION OF FARM OPERATIONS IN THE WEST FAVORED BY PRESIDENT BEATTY OF C.P.R.

Winnipeg, Man., Oct. 3—Study of existing farm management operations in the Winnipeg and Portage La Prairie sections of Manitoba has convinced E. W. Beatty, K.C., President of the Canadian Pacific Railway, that a plan of supervision of that nature is essential to the improvement of farm practices generally and is a necessary incident to any Federal Immigration scheme, if and when that question is again considered by the Dominion authorities. Mr. Beatty secured first-hand knowledge of conditions in the area mentioned, yesterday when he covered the country immediately west of Winnipeg by automobile, accompanied by T.O.F. Herzer, manager of the Colonization Finance Corporation; D. C. Coleman, vice-president, Western Lines of the Canadian Pacific; James A. Richardson, a director of the company; and other railway and colonization officials.

"I had the advantage," Mr. Beatty said today, "of spending a whole day on farms in the Winnipeg and Portage area under the management of the Colonization Finance Corporation and the Canada Colonization Association, and this visit and the discussions with the farm managers as well as with the farmers, have given me a little keener appreciation of the value of the work being done."

"It has been said, and I am afraid there is some justification for it, that in our colonization and settlement policies of former years there has not been sufficient advance planning, which has

led to the efforts being of a somewhat haphazard and unordered character. This in turn has probably affected the character of our farm operations and in many cases the lack of supervision has endangered the investment of the farmer as well as that of the companies which have advanced the monies to enable the operations to be carried on."

"A study of the work which has been done during the past four years by the Colonization Finance Corporation has convinced me that there is no more important adjunct to farming operations in the Prairie Provinces than the establishment of efficient supervisory forces which will co-operate with the farmers in improving farm practices and in correcting errors in farm management which have developed."

"If and when the question of immigration is again considered by the federal authorities," Mr. Beatty concluded, "I am convinced that a plan of supervision is a necessary incident to its success. In the meantime, the work which is being done and which no doubt will gradually be extended, is of the utmost value, an increase in the area under supervision has enabled the cost per area to be substantially reduced and still further reductions are possible if this area is extended. Farm management for many years to come will, I think, be an important factor in the success of farming operations in Manitoba, Saskatchewan and Alberta."

GOLD SEARCH HELPING BROAD INDUSTRIAL LIST

(Financial Post)

The developments in the last two years have enormously enhanced the value of British Empire assets and have greatly strengthened the financial position of Australia, South Africa, West Africa and Canada, comments The Daily Express of London.

London, according to The Daily Express, is the greatest market for gold shares in the world and buying orders have poured in from speculators in all quarters of the globe. As an indication of how values have advanced it is shown that the whole of the gold properties in West Africa three years ago were valued in the market at barely £2,000,000 while today the Ashanti Goldfields Corp., alone has a market value of over £6,200,000.

Many Supplies Required

The new high levels for gold have brought into production throughout the world mines thought to have been worked out and properties that were definitely on the unpayable basis with gold at the standard value have been put in a position to earn good profits.

The panacea—\$20 gold—has in Canada stimulated prospecting on a scale that is unprecedented. While this prospecting does not immediately benefit the gold industry, it does immediately reflect in a widely diversified industrial realm. Airplane transportation companies are experiencing a brisk trade, transporting prospectors to fields near and far. How even a small prospecting party distributes wealth to be shared by many industries is told by the following list, the requirement of a small prospecting party.

Goods Purchased

Canoes, paddles, compasses, rifles, ammunition, magnifying glasses, field glasses, fishing tackle, mortars and pestles, axes, shovels, tents, mosquito bars, blankets, ground sheets, camp stoves, cooking and eating utensils, gold pans, whetstones, files, hunting knives, electric tape, waterproof match boxes, matches, candles, flashlights, moyses (for sampling) notebooks and diaries, ruled paper for drawing plans, rope, packbags, dunnage bags, tump drivers, wrenches, spark plugs, sewing bits, sealing wax, canvas sample bags, caulking material twine, maps, reports, books, onboard motors, shaving outfits, soap mirrors, combs, brushes, cards, extra leather laces, tooth paste, hob nails, clothing, flannel, canvas, extra socks, boots, running shoes, medical kits, acids, explosives, 50 cop. Trib. and F. Press (var. dates), canoe yokes, oil gasoline, tobacco, cases, cigarettes, etc., flour lard bacon, sugar,

butter, beans, tomatoes, jam, mustard, pepper, salt, bread, eggs, powdered eggs, baking soda, tea, coffee, yeast, macaroni, rolled oats, onions, raisins, currants, apples (dried) peaches, prunes, apricots, cheese, peas, corn meal, rice, crisco, table syrup, canned milk, potatoes, chocolate, prospectors' anvils and forges 18½ star drills, striking hammers, ball pain hammers, prospectors' picks, dynamite, explosive caps and fuse, telescopic cooking outfits, pails, grub hoes and picks (combined), copper nails, heavy mining trousers, ordinary trousers, heavy shirts, sweaters, underwear, elderdowns, junket tablets, biscuits, coal, dubbin, paint, chewing gum, kodaks, films, lighters, ink, pencils, can openers, thermos bottles, whizz, sandpaper.

On the strength of the current high price for gold investors have witnessed their securities advance to new high levels and have also experienced higher dividends to compensate for less fortunate investments in fields other than gold mining.

In Canada alone, among the major producing nations of the world, the production of gold and the stimulus given to prospecting has been unhampered by any irritating taxation that would dampen the widespread search and development programmes now under way.

Search is Stimulated

In United States, by way of contrast with Canada, the gold mining industry has been experiencing a slump in production as it had no such stimulus and only in recent weeks has a more sympathetic attitude been adopted that permits United States gold producers to obtain for their production a world price in the free London market. Thus in effect, Canada has had two years advantage over the United States, due to obtaining for its production the world market price well above the standard price of \$20.67. Within a two-year period the value of Canada's gold output has increased about 63 per cent in Canadian funds, while that of the United States has decreased. This in itself tells in a most forcible way the advantage accruing to gold mining when it is not handicapped by taxation. The widely diversified list of supplies given above is testimony to the general industrial benefit accruing to Canada's unfettered gold policy.

Illinois dairymen are so excited over one thing and another that it is up to the hired man to do the milking.

ORANGE PEKOE BLEND "SALADA" TEA "Fresh from the Gardens"

THE BULL SAFE ENOUGH facing each other. The bull was pawing the ground. "To me", Senator Reed said in Pittsburgh, "there is something sinister about inflation. I remember bull safe?" "Safer than you are", said the city chap and the farmer. "The farmer was on his way back to the farmhouse. He smelt cigarette smoke and looked over the hedge that bounded a meadow. Among the grass and wild flowers he saw a permit that popular hero to trade his pale city chap and a bull. They stood leopard skin for a bathing suit.

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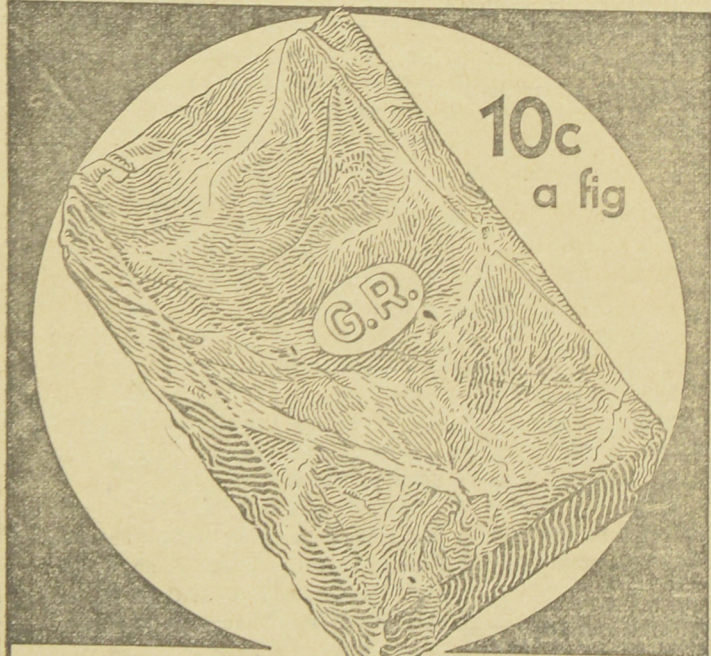
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