

599.7538  
C. ...



FOR THE PEOPLE  
FOR EDUCATION  
FOR SCIENCE

LIBRARY  
OF  
THE AMERICAN MUSEUM  
OF  
NATURAL HISTORY





THE WATER BUFFALO



*THE*  
WATER BUFFALO

*(Often called The Mud Buffalo)*

*ITS CHARACTERISTICS AND HABITS  
TOGETHER WITH  
A DESCRIPTION OF THE  
PREPARATION OF ITS HIDE  
FOR MAKING  
RAWHIDE LOOM PICKERS*

BY

H. P. GARLAND

PUBLISHED BY  
GARLAND MANUFACTURING CO.  
SACO, MAINE

Copyright, 1922, by  
Garland Manufacturing Co.,  
Saco, Maine

44-157377-A4510

Smith & Porter Press, Inc., Boston, Mass.



# *Table of Contents*

	PAGE
PREFACE . . . . .	7

## CHAPTER I

THE WATER BUFFALO . . . . .	9
The Wild Buffalo — The Domesticated Buffalo — Its Appearance — Its Habits — Dangerous but Timid	

## CHAPTER II

THE BUFFALO A BEAST OF BURDEN . . . . .	23
It Excels in the Rice Fields — Disadvantages of the Buffalo — Buffalo Horns — Buffalo Milk	

## CHAPTER III

DOMESTIC HIDES UNSUITABLE FOR LOOM PICKERS . . . . .	33
Buffalo Hides Make Poor Leather — Make the Best Loom Pickers — Quality Varies According to Living Conditions — Disease and Famine Increase Supply — Drying of the Hides Important — Collecting and Marketing Hides	

## CHAPTER IV

PREPARATION OF HIDES FOR LOOM PICKERS . . . . .	47
English Prepared Hides Are Best — Our Hides Skillfully Prepared — Rawhide Waste — Why Pickers Should Be Seasoned — Seasoned Pickers in Stock — Catalogue Sent	



## *Preface*

*An experience of many years has shown us that but few of those who use rawhide loom pickers are familiar with the material of which they are made, which leads us to believe that a description of the buffalo, its habits and characteristics, the marketing of its hides and their preparation for loom pickers may prove interesting.*

*There is but little published about the buffalo, aside from a technical description of the animal and its habitat, so that it has been necessary for us to go for information to those who know the buffalo in its native surroundings and to those who handle its hides. The subject matter of the following pages has, therefore, largely been obtained from life-long residents of the Far East and buffalo hide merchants in both the Orient and England. The U. S. Commerce Reports have also furnished interesting information, and a personal investigation by the author on the spot has brought out much that is interesting and is responsible for most of the pictures with which this book is illustrated. The information concerning the interbreeding of domestic cattle with the humped Indian cattle is given by a representative of American packing interests in Texas and South America.*

*It is believed that this little book gives much information not before generally known, and if it succeeds in proving of interest to those who use "buffalo" or rawhide loom pickers, it will have accomplished its purpose.*

*Garland Manufacturing Co.*

*Saco, Me., January, 1922*



Water buffaloes ploughing in the rice fields in Ceylon

## Chapter I

### THE WATER BUFFALO

(Often called The Mud Buffalo)

THE water or mud buffalo (*bubalus buffelus*), from whose hide rawhide loom pickers are made, inhabits the Malay Archipelago and southern China, and is also found in the Philippines. It should not be confounded with the so-called American buffalo, which is not a buffalo but a bison, differing from the true buffalo both in appearance and anatomy.

### THE WILD BUFFALO

The wild buffalo is found in the plain of Brahmaputra and the Ganges, at the foot of the Himalayas, from eastern Assam to Tirhut and along the coast of Midnapur and Orissa provinces in India, as well as on the grass lands of the eastern portions of the Central Provinces, especially in Mandla, Raipur, Sambalpur and Bastar, whence it extends as far south as the Godavari and Pranhita valleys. It is also found in Burma, in the northern part of Ceylon and in the Philippines. It lives in the tall grass jungles and in the neighborhood of swamps, feeding in the evening and early morning and lying down in the water or mud of the swamp during the day.



Courtesy of "ASIA," the American Magazine on the Orient

C. K. EDMUNDS

A Chinese water buffalo

In the wild state the buffalo is one of the largest, strongest and most ferocious animals in existence. "A buffalo," declares Baker, "if not killed will surely destroy its adversary. There is no creature in existence that is so determined to stamp out the life of its opponents, and the intensity of its fury is unsurpassed when a wounded bull buffalo rushes forward upon the last desperate charge." It is more than a match for the tiger and, because of this, the native Indian princes used to arrange a fight between these two animals for the entertainment of their guests.

The natives of the interior of Java at the period of the Mohammedan New Year sometimes stage a *Rampok*,



or tiger and buffalo fight, when a tiger and a domesticated water buffalo, usually a bull or a cow with a young calf, are placed in the arena. The tiger invariably attempts to kill his enemy by leaping on his shoulders and breaking his neck, but when he is in the air midway of his leap the buffalo usually lunges forward and strikes him a stunning blow with his head and horns; then, before he can scramble to his feet, the buffalo is upon him kneeling and kneading his body with such terrific force that he is left a bloody, mutilated and lifeless pulp. Sometimes two tigers are pitted against one buffalo, and it is seldom that he fails to vanquish them.

The Burmese when referring to a desperate combat of any kind say "*Kyæe knit Kya lo beh*" — like a fight between a buffalo and a tiger — meaning to the death. Buffaloes, both wild and domesticated, have a great



Buffaloes are good swimmers but are ungainly in their movements on land

hatred for the tiger, and the domesticated animals have been known to rescue their herdsmen from his attack. It was with a herd of buffaloes that Mowgli, in Kipling's *Jungle Tales*, killed Shere Khan, the tiger, and regained his power over his jungle friends.

The wild herd when attacked is said to form a ring, with the cows and calves on the inside and the bulls on the outside, with lowered horns pointing outward, a ring which no wild animal can break through. They are hunted by beating with a line of elephants, by tracking on a single elephant or on foot, and no big game shooting is attended with greater danger.

The cape buffalo (*bubalus caffer*) is a native of South Africa and perhaps is the largest and most ferocious of



The buffalo feeds on the aquatic grasses and reeds which line the banks





Water buffaloes in their element

all. Its horns are peculiar, being very large and almost touching near their base to form a cap to protect the forehead. They swell near the skull and then bend backwards, rising a little in height in front, with the points approaching each other. Its hide is so thick and tough that the natives use it for shields. They are not domesticated and are fast disappearing.

### THE DOMESTICATED BUFFALO

The domesticated buffalo is found in India, Burma, the Straits Settlements, Java, southern China and throughout the entire Malay Archipelago. It is also found in the Philippines, where it is known as the carabao. In its domestic state it differs but little from the wild buffalo, probably because of the semi-



Mountain carabao at Benguet in the Philippines



Buffaloes prefer the mud and water

wild conditions in which alone it can be kept peaceable in captivity.\*

It is not known when these animals became domesticated, but certainly many centuries ago. They were used by the Egyptians in the fifth century and at the same time the Arabs brought them to Persia. They were at about this period used in Greece and Hungary, and in 600 AD. were introduced by the Romans for agricultural purposes. In recent times Napoleon on his

*\*They are also found on Melville Island, off the northern coast of Australia, where they were introduced many years ago and now number thousands. Here they are hunted for their hides.*

—Zinn in *“Wild Animals of Yesterday and Today.”*

return from Egypt introduced them in Landes, a department of France bordering on the Pyrenees, and the Bay of Biscay, where the land on the shore is so swampy or sandy that the peasants walk on stilts when tending their herds, but the venture was not a success, due perhaps to lack of the tropical heat to which the buffalo is accustomed.

Few animals have changed less in captivity than the buffalo, which never interbreeds with the native humped Indian cattle. The buffalo matures at the age of four, lives about twenty years and is worth from twenty-five



Buffaloes about to charge the photographer





The buffalo, although a dangerous animal, is gentle to those whom he knows, particularly children

to thirty-five dollars. The pairing season is in the autumn and the calves, not infrequently two at a birth, are born in the summer, the period of gestation being ten months. The cow has five or six calves during her life.

### ITS APPEARANCE

The buffalo is large in size and possesses enormous strength, some breeds in India averaging in weight from 1600 to 1800 pounds and measuring  $6\frac{1}{2}$  feet high at the shoulder. Its horns, which are black and bend back toward the neck, are of great size, having been known to measure 6 feet from tip to tip. The finest pair of horns on record is said to be in the British Museum, the length along the outer curve of one horn being  $77\frac{3}{8}$  inches and

the basal girth 17½ inches. They are more or less flattened and angular at the base, with rings for one-half



A Karen boy riding on a water buffalo

their length, and are pointed at the tip, differing from the other members of the genus *Bos* by the distinctly triangular section of their horns as well as by the rounded form of the hinder part of the skull. It has a powerful neck, short thick

legs and black hoofs, which, being broad and splayed, prevent its sinking too deep in the mud when ploughing in the rice fields.

The buffalo, when young, has a certain amount of coarse bristly hair of a dark color, sometimes with a reddish tint, over the head and body, but, un-



Riding buffaloes in flood time



Buffaloes are usually driven singly or yoked in pairs, but occasionally driven tandem

like the African buffalo, this hair is directed forward from the haunches to the back of the head, a whorl in the hindquarters marking the point at which the hair of this region commences to be directed backwards. The hair, however, disappears almost entirely with age, when the animal shows only a skin of a dark color not unlike that of an elephant and has only the knees, feet and end of the tail ornamented with thick coarse hair.

### ITS HABITS

It eats food which other animals will not touch and it can even go without food for some time, provided it can wallow in mud and water. It swims well, but is ungainly in its movements on land. Its sight is poor, but its hearing and sense of smell are good.



Buffaloes with wooden wheel cart in India

As its name implies, the buffalo loves the water and mud, and prefers to live where it can feed on the coarse aquatic grasses and reeds which line the banks and spring from the shallow waters of tropical streams, and where it can wallow in the mud undisturbed.

When lying in the water or mire, it is constantly ducking its head under to drive away from the top of the head between the horns the swarm of bot flies which attack it at a place where it has no other means of defence. When out of the water small birds hover around the animal to feed upon the flies and insects which pester it. Even in the domesticated state, the buffalo must be given a chance for a daily wallow or it becomes vile tempered and unmanageable and sometimes runs mad. When it lacks its daily bath, buckets of water are some-



times thrown over its body when harnessed to a cart, as otherwise when passing a stream or canal it is likely to dash into the water with its burden. It is for this reason that cattle are preferred in India for hauling carts, especially in the drier parts of the country.

### DANGEROUS BUT TIMID

The buffalo is a dangerous animal but at the same time timid. In charging, he lowers his head sidewise and rips upward with one horn. He dislikes strange objects and has a particular aversion to a woman in European



The carabao can be kept peaceable in captivity



A buffalo or carabao with cart in Manila

dress or a boy on a bicycle. A sign of fear is quickly recognized by a charging buffalo, when it becomes extremely dangerous, but a shout and a wave of the arms cause it to stop and run away. The animal is, however, usually kind and gentle to those whom he knows, particularly children, who guide him with a twig and whom he seems to delight to have ride on his back.

## *Chapter II*

### THE BUFFALO A BEAST OF BURDEN

**I**T IS as a beast of burden that the buffalo is invaluable. Its prodigious strength enables it to do an enormous amount of work; being able to live on food which other animals refuse makes it less expensive to keep, and its ability to live and do heavy, hard work in the hot humid atmosphere of the tropics makes it particularly suitable for the conditions which prevail in the Far East.

It is often harnessed to a cart, but its fondness for water, as already stated, makes this attendant with some risk. In Burma it is especially valued for dragging heavy logs up the steep river banks to the saw pits where the logs are sawed by hand. The logs are scarfed off on one end so that they can be dragged along the ground, a hole made near the end and a chain fastened to the log and yoke. A pair of buffaloes in this way will easily drag an immense log which two yoke of oxen could not start.

#### IT EXCELS IN THE RICE FIELDS

It is in the rice fields, however, that the buffalo excels. Rice is not sown broadcast; it is first planted in nurseries,



A street scene in Manila

and when about 12 inches high is transplanted a spear at a time into the soft mud of the fields which has been prepared by ploughing. Rice grows best under about 4 inches of water, and the ploughing which produces the richest mud produces the best crop.

In preparing the ground for the rice, no animal is equal to the buffalo, for in the mud and water of the field it is in its element. Its great weight causes it to sink deep in the mud and its enormous strength enables it to plough deeper than can be done in any other manner. The ploughing may be done by a single buffalo dragging a wooden plough or they may be yoked in pairs. The yoke is a straight, heavy beam of hard wood turned to a diameter of about 5 inches. Instead of a bow such as the old ox-bow of New England, two straight, heavy hard-wood pins are put through holes in the yoke down

each side of the buffalo's neck, and a plaited rope is placed under the neck and fastened at each end to the top of the pins. A yoke of this kind the buffalo cannot cast. They are driven with reins, the driver walking or riding behind, and are sometimes guided by a rope attached to a nose ring.

### DISADVANTAGES OF THE BUFFALO

Rice is the staple article of food throughout the Far East, so that the prosperity of the people depends largely upon the quantity of rice raised and its price. In Burma



Water buffalo ploughing in a rice field in the Straits Settlements where a single buffalo is used. In Burma the buffaloes are always yoked in pairs





Water buffalo with cart in Anam ( French Indo-China )

at one time the area given to rice was small because a royal decree prevented its exportation upon the theory that the cost of rice would be less; but when the prohibition against the exportation was removed, the acreage increased enormously, so that irrigated land away from the rivers and streams was used for rice planting. The buffalo under these conditions could not be used to as good advantage as the bullock, owing to the absence of rivers and swamps in which to wallow. Because of this, bullocks were used for ploughing, and when the ploughing season was over were tied up and stall fed. The buffalo on the other hand is cared for with difficulty when the ploughing is done, as it must be given a chance for a daily mud bath or it runs amuck and



Ploughing in the rice fields. Note the depth of the mud



A Chinese buffalo with plough

becomes dangerous. Then, too, the bullock is used for driving in place of horses, and can be used in other than the ploughing season. Disease, especially the hoof and mouth disease and the cowpox seem

to be more prevalent among buffaloes than among bullocks, so that the farmer takes greater risk in raising buffaloes than in raising cattle. The bullock, therefore,



Buffaloes ploughing in the rice fields





Bullocks or humped cattle at Madras, India. Note the difference between these and the water buffalo

is in some cases displacing the buffalo in the interior. These conditions have a tendency to decrease the number of buffaloes and consequently the supply of buffalo hides.

### BUFFALO HORNS

The horns and sometimes the hoofs of the animal are used by the natives in making large transparent lanterns, and, before the prohibition of opium, large quantities were made into cups for packing and storing the drug. They are exported in large quantities to Europe and the United States—1,000,000 pounds from China alone in 1917—to be used in making combs, shoehorns, knife



Showing horns of the Philippine carabao

handles, buttons, toilet articles and a clever imitation of ebony.

### BUFFALO MILK

The milk of the buffalo is very white and very rich. In northern India "ghee" or a rancid butter used instead of lard is made of it, but in Burma it is seldom

used because it is contrary to the Buddhist religion to take the life of the animal and to drink the milk which they say is the life of the calf.

“The percentage of fat and protein in the milk of the Chinese buffalo cow is very high, higher than that of buffaloes in other parts of the world. More than eight hundred analyses which have been made during the past two and one-half years of fifty buffalo cows have shown an average of 12.60 per cent fat. Ten analyses have shown the milk to contain 6.04 per cent protein, 3.70 per cent sugar, 0.86 per cent ash and 76.80 per cent water. Similar analyses have shown that European cows' milk in southern China contains: Fat, 3.80; proteids, 3.23; sugar, 5.96; ash, 0.81 and water, 86.20. The total solids in buffalo milk is 23.20 per cent as compared with 13.80 in European cows' milk. Three buffalo



A water buffalo with Chinese driver

cows in one dairy herd gave milk testing as much as 15 per cent fat for a period covering seven months. None of the cows averaged less than 10 per cent fat for a lactation period.

“Although individual buffalo cows in other regions have given milk with more than 10 per cent fat, the average has been far from that of southern China. Milk of the Chinese buffalo is pure white in color, and butter made from it contains but a faint tint, if any, of yellow. It is wholesome and palatable when produced under sanitary conditions. Like most kinds of milk, when clean, it contains little or no odor. In recent years some dairies in Canton and Hong Kong have been using the buffalo for milk, and by selection and good feeding now have cows giving up to twelve pounds and more milk a day, testing from 6 to 15 per cent fat.”\*

\**U. S. Commerce Reports, July 11, 1919*

## *Chapter III*

### DOMESTIC HIDES UNSUITABLE FOR LOOM PICKERS

OUR domestic cattle hides are too thin for picker purposes and do not possess the strength and toughness characteristic of the buffalo hide. They are also much more expensive, so that, even if suitable, pickers made of domestic hides would cost much more than those made of buffalo hide.

The only American cattle hide which approaches in a slight degree the buffalo hide in thickness is that of a breed of cattle in Southern Texas. It was found that the native cattle were thin and scrawny because of the ticks, mosquitoes and the Berney fly which pestered them, and the problem, therefore, was to produce a breed of cattle with skin thick enough to withstand these pests. The buffalo does not interbreed with either the domestic cattle or the humped cattle of India, but the hides of the latter, although not as thick as those of the buffalo, are much thicker than the hides of our domestic cattle. Cows of the native humped cattle of India were therefore imported and bred to Hereford and shorthorn bulls. This produced a species of cattle with skins impervious to flies and immune from Texas fever. Brazil, for the same purpose, imports both the bulls and cows, and it has





These buffaloes are scrawny and thin because of lack of good grazing

been found that in breeding the cows to Hereford bulls the hump disappears in the first cross but the skin retains its original characteristics and is thick enough to withstand the plague of flies.\* Although the hide of these animals is thicker than that of the domestic cattle, it is not thick enough for picker purposes, nor is it as suitable as the hide of the buffalo.

*\*A wealthy cattleman of Brazil in 1919 paid \$20,000 for one of these bulls.*

## BUFFALO HIDES MAKE POOR LEATHER

Buffalo hides are thick and of a coarse fibre. They make an inferior leather, but in times of great scarcity, notably during the war, the best grades of buffalo hides were brought into this country for tanning. The hide of these animals is so heavy that it produces a leather too thick for ordinary use, but to overcome this the Chinese, after soaking the hide, hang it over a beam and with a short handled tool similar to an axe, split the hide while in a wet state as uniformly and as well as if done with a modern splitting machine. Hides split in this manner are tanned by the natives and produce leather of the desired thickness.



The result of good grazing is shown in the appearance of this buffalo whose hide will be of good quality



Water buffaloes in Burma



It is not only the character of the buffalo hide and its thickness which makes it unfit for producing leather of the best quality, but the taking off of the hide and its drying still further tend to make the hide unsuitable



Fastening buffalo hides on bamboo frames for drying. They are held in place by tying with grass twine

for tanning. The hides of buffaloes which are killed in slaughter houses for beef are better taken off and more carefully dried than those taken from the animals by the natives in the up-country districts, as the latter are frequently mutilated by cuts and slashes which, with careless branding, seriously damage the hides. The facilities of the natives for tanning are so crude and the leather produced so inferior that but a very limited number of hides are used for this purpose.



Hides drying on bamboo frames

### MAKE THE BEST LOOM PICKERS

We have seen that a few buffalo hides are tanned, some are made into sandals and baskets by the natives and a small quantity of the very heavy are used for polishing purposes, but the bulk is made into rawhide or "buffalo" loom pickers. The hide of no other animal seems as suitable for this purpose, as it possesses the necessary strength, thickness and elasticity and, because of its being unsuitable for leather, costs less than hides which can be used for tanning and other purposes.

### QUALITY VARIES ACCORDING TO LIVING CONDITIONS

The hides of the water buffalo, like the hides of domestic cattle, vary in quality according to the conditions

under which the animals live. Buffaloes in the drier portions of India where food and water are scarce are thin and scrawny, and their hides not as good as the hides of animals living where the grazing is good and water plentiful, such as Java, one of the most fertile spots in the world, with an abundance of food and water. The Java buffalo hides are, therefore, of particularly good quality and are known as Batavias, from the port in Java from which they are shipped. Chinese buffalo hides from those



Taking the hides off the frames

sections in China where the animals live under favorable conditions are also of good quality.

Singapore hides are those shipped from Singapore and are usually of a somewhat courser fibre than the Batavias, and vary in quality, as in all other cases, according to the conditions under which the animal lives.

## DISEASE AND FAMINE INCREASE SUPPLY

In Burma and other countries in which the Buddhist religion prevails buffaloes are not killed, as it is con-



Taking buffalo hides to the boat at a landing on the Irawaddy River ( Pakkoku ) between Mandalay and Prome. At every stop the boat takes on a few hides

trary to the religion to take the life of the animals, and in these countries hides come only from buffaloes which have died from disease, accident, or old age, so that when an epidemic of the foot and mouth disease or cowpox occurs, or there is a great scarcity of food, the supply of hides increases. In other countries, such as China and Java and in the large towns

of India, the buffalo is killed for food, and its milk used. In either case, an epidemic of disease or a famine makes hides plentiful, and the contrary makes them scarce.

The uncertainty of the supply, together with the tendency of the buffaloes to decrease in number, has caused a steady advance in the price of their hides.



Dry buffalo hides brought to Rangoon by rail

### DRYING OF THE HIDES IMPORTANT

The drying of the hide after being taken off the animal is of the utmost importance because of the climatic conditions. The heat of the tropics is intense and the rays of the sun burning during the day, but the nights are cool, with heavy dews. The native sun-dries his hides by spreading them on the ground to dry, but if not properly cared for the heavy dews deposit water in the depressions of the hide, which the intense heat of the sun acts upon, and decay results.

The hide, when taken off, if properly handled is first fleshed and then treated with an antiseptic solution to protect it from ants and insects. It is then stretched upon a frame and held in place by means



of grass twine passing through holes made on the edges of the hide, when they are sun-dried. Hides dried in this manner are much more free from the decay likely to



Wet buffalo hides unloaded from train in Rangoon in early morning

occur in hides laid on the ground to dry. After drying, the hides which are shipped from Java and Rangoon are folded down the middle of the back and packed for shipment in bales of twenty to twenty-five hides, depending upon their weight. Hides shipped from Singapore are usually shipped loose. Hides are sometimes salted or pickled, in which case the hide is folded by itself into a bundle ready to ship.

#### COLLECTING AND MARKETING HIDES

Although some hides come from slaughter houses, the bulk is collected in the up-country districts in

small lots and brought to the railroad stations and boat landings for shipment to the great ports, where they are assorted for quality and stencilled with the mark of the shipper. The hides are assorted with such care that their quality can be determined by their marks. If the buyer in England, on inspection, considers that the hides are not up to the usual standard he appoints some one to arbitrate in his behalf and the seller does likewise. If the two do not agree, a third is called in and his decision is final.

The marks of Singapore hides of the best quality are, for instance, Horse Head (Horse rampant), E. B. & Co., B. M. & Co. Hides of the best quality from Rangoon are marked PABS. There are also hides shipped from this locality known as "Shaved Rangoon," that is, machine fleshed, which are of good quality and suitable for picker purposes. Slaughtered Penang buffalo hides are prepared with great care and are of particularly good quality. They are shipped under various marks, one of which is "ONE." Buffalo hides from Java are among the best produced and are sold under various marks, those most in demand being:

VNC  
 & MNC,  $\frac{MB}{C}$ , MN, FE, MW, LYTM.  
 CO.

A very few Chinese buffalo hides were shipped to England previous to the war, but during the war, and since, large quantities have been sent to that country. The quality of these hides is so good that there will

doubtless continue to be a demand for them for picker purposes. They are shipped under various marks, the



Wet buffalo hides being taken from a  
Chinese shop in Rangoon

most reliable being RB, Double Eagle, S H Y, Double Phoenix.

Amsterdam is the market for hides from Java and China, which are sold by tender, but at the present time hides from Java are being sent direct to England in fairly large quantities. London is the principal auction market for Singapore hides, although in recent years a large proportion of the hides have been bought "to arrive," so that, as the North of England is the ultimate destination, arrival contracts are made for Liverpool.

The buffalo hide market in the Orient is in the hands of the Chinese, who are among the shrewdest traders in the world, and great care in buying must be exercised to guard against false weights, due to stuffing



with sand. It is because of such practices and because the Chinese better understand their own people that the European dealers in the East have their own Chinese buyers as a go-between.

It is a matter of from six months to a year after the hides are shipped from the East before they reach us, so that we are obliged to anticipate our requirements far in advance in order to secure the most satisfactory selection.



The water buffalo or carabao of the Philippines

## *Chapter IV*

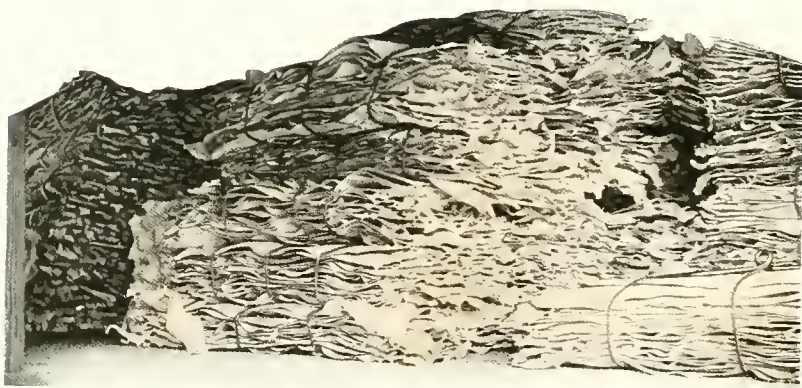
### PREPARATION OF HIDES FOR LOOM PICKERS

**T**HERE are two methods of preparing hides for picker purposes. One is by debairing without lime, which takes but a few hours and is satisfactory provided the hides are sound, but this method does not disclose hidden imperfections. Pickers made from hides prepared in this manner run the risk of being made from hides which are apparently sound, but really imperfect. The other method of removing the hair is by the liming process. The hides are soaked in lime pits for the purpose of starting the hair and when taken out are scraped to remove the hair and flesh. The decay caused by sun-burning, previously referred to, is self-evident in many cases but in others it is hidden, as a hide may appear to be perfectly sound on both hair and flesh sides but be unsound in the center. Liming the hides discloses these imperfections, but no matter how careful one may be, or how good a judge of hides before liming, a lot of apparently sound hides will show from 5 to 10 per cent unsound when taken out of the lime pits. Limed hides are, therefore, the safest for picker purposes, and it is hides prepared in this manner that we use.

The hides, after dehairing and fleshing, are allowed to dry and are then disinfected by treatment with a solution of one to one thousand parts of bichloride of mercury, to comply with the laws of the United States, when they are shipped to us in bales of about five hundred pounds of half hides or bends. They undergo no preparation other than that mentioned and are simply the hide of the buffalo dehaired and dried.

#### ENGLISH PREPARED HIDES ARE BEST

It should be remembered that the rawhide loom picker industry is much more extensive in England than with us, not only because there are more looms in that country but also because every plain cotton loom in England takes two rawhide pickers instead of the leather pickers which we use on the underpick loom. The preparation of hides for picker purposes is, therefore, a business by itself in England and is carried on by concerns which specialize in this kind of work and do



A small part of the large stock of hides in our storehouse

nothing else. The nearness of the curers to the market, which gives them the opportunity to secure hides of the desired quality, and their years of experience and knowledge of what is required, result in producing hides more suitable for loom pickers and better prepared than can be obtained elsewhere.

### OUR HIDES SKILFULLY PREPARED

Hides of inferior quality, no matter how carefully prepared, do not make the best loom pickers, and hides of the best quality may be made unsuitable by too much or too little liming. It is, therefore, of the utmost importance that hides be selected and prepared by reliable and experienced curers if pickers of the best quality are to be produced.

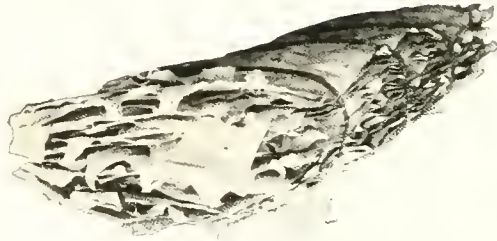
We have for nearly fifty years had our hides prepared by one of the largest and best curers in England. We have the first selection from his stock and our requirements are anticipated far enough in advance to allow ample time in which to select hides of the best quality. We are, therefore, never obliged to go into the market and accept inferior hides to keep going. We receive only sound hides of the best quality and are confident that the hide quality of our loom pickers cannot be surpassed.

### RAWHIDE WASTE

The waste in making loom pickers is very great, coming not only in the cutting up of the hides but also in

the manufacture of the pickers, and is known as raw-hide cuttings or strap ends. The waste is of excellent quality, much too good for ordinary glue, and is used for paper sizing, bringing a higher price than the glue manufacturers can afford to pay.

Damaged hides, of which there is bound to be a certain percentage in any lot, are cut by the curer into small shavings, which are used for paper sizing, the



A bundle of hides as it comes from England

principal market for which is this country. Even old worn-out pickers are used for glue and to a limited extent for paper sizing, but for the latter purpose the oil and iron rivets are objectionable features because of the discoloration which they are likely to produce, and their removal is an expensive operation.

#### WHY PICKERS SHOULD BE SEASONED

The hides when received are dry and hard, so that it is necessary to soak them in water to make them pliable for working and moulding in the dies to form the finished picker. The water in the hide gradually dries out



as the picker goes through the various processes of its manufacture, the water in the hide on the outside, quickly, but the water in the hide inside of the picker not exposed to the air, slowly. It is for this reason that old and, therefore, seasoned pickers are more durable than those newly made.

### SEASONED PICKERS IN STOCK

We carry a large stock of pickers in all the standard styles and sizes, which are thoroughly seasoned and ready to put on the loom when received. Pickers which are made to order should be ordered long enough in advance to allow their being held for seasoning, if the best results are to be obtained.

### CATALOGUE SENT

Our illustrated catalogue of 150 pages and 370 cuts describes a great variety of loom pickers, gives their exact sizes and specifies those which are carried in stock. A copy will be sent on application.



Finally the hides become the well-known Garland loom pickers







Garland, L. ... The water  
1922 5

SEP 30 1970

*Free*  
7

8vo

AMNH LIBRARY



100117882