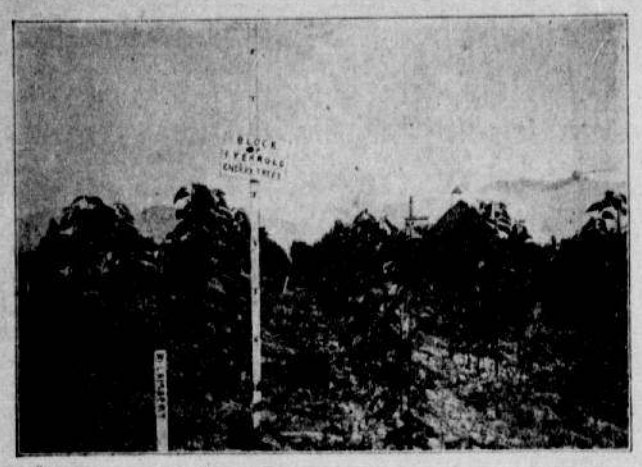
EVERYTHING FOR ORCHARD, LAWN OR GARDEN



Trees That Grow

Shrubbery and Perennials for Yard Decorations

Choice Bedding Plants

ALL STOCK BRED TO THIS CLIMATE

Lawn, Garden and Curb

LAWN

We have ornamental plants and shrubbery to beautify the lawn. If you are contemplating setting your lawn with plants or shrubs, call us up and permit us to suggest what of our many varieties would suit your particular plot the better.

GARDEN

Our garden plants combine all the best varieties. We have them in all stages of development and can aid you materially in successfully raising garden truck.

CURB

A curb ornamented with a be autiful hedge of sturdy shrubs is sure to enhance the beauty of both your property and Missoula's driveways. Especially softening to any landscape is the replacing of fences with sturdy, luxuriant hedges.

Flowers, Plants and Blossoms of all varieties kept fresh at our city office. In making your flower garden you will find the advice of our expert gardeners helpful. We have this spring an especially fine line of all that is necessary for a fine flower garden.

Missoula Nursery Co.

GREENHOUSES AND NURSERIES, TELEPHONE 45

Fruit and Shade Trees

FRUIT TREES

There is one reason, above all others, that indorses our trees. They are grown right in the Bitter Root valley. They are acclimated the very moment they begin their growth. This means a great deal to even the most experienced orchardists. From the very moment our trees begin to grow until they are disposed of, they are given the most careful attention. The men employed by the Missoula Nursery Co., are all thoroughly finished horticulturists.

SHADE TREES

Our stocks contain the trees that are best adapted to the soil of the Bitter Root valley and Western Montana. They are so grown and attended as to insure luxuriant growth. Let us send our gardener to assist you in selecting your shade trees. We make a specialty of the selection and arrangement of shade trees for large and small yards. Our maples and poplars are splendidly adapted to Missoula climate and Bitter Root conditions.

C. F. Dallman, Prop.

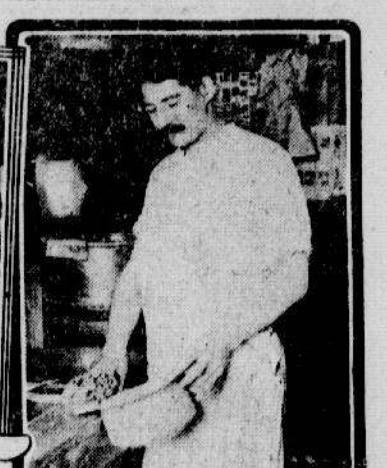
CITY STORE, HIGGINS BLOCK, TELEPHONE 192 BLACK

STRAW HAT MAKING

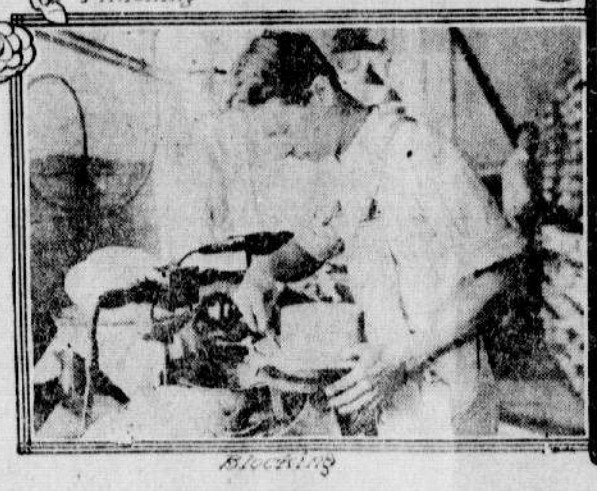
BY THOMAS WILSON

Sewing — Finishing

Trimming



Sizing



Blocking

Pattern Making

The manufacture of men's straw hats is one of the most important industries in this country, for the annual production is close to 800,000 dozen, ranging in price from $3.50 to $84 per dozen wholesale, and retailing from 50 cents to $10 each. The industry is constantly growing, for the demand for summer headgear by men is greater now than it ever was, and, more than that, the majority of men buy not less than two of these lightweight hats each summer.

The greater quantity of straw for the making of hats comes from China, where the rice and wheat straw is not only grown for the purpose, but it is braided and assorted there, coming to the United States ready for bleaching and sewing together. Considerable straw comes from Japan, while Switzerland, Belgium, Italy and England furnish some. The relation of production of the raw materials, however, is China, 75 per cent; Japan, 20 per cent, and the others combined, 5 per cent.

All of the plaiting of straw is done by hand, and it is put up in various widths, quality and kind, running in lengths of 12 yards, 24 yards, 60 yards and 120 yards. Each length is bound up into a hank, is tied at each end, and several hanks, tied together, are then wrapped in paper, again tied up and put into either cases or bales for shipment.

The manufacturer, upon receiving the braids, finds them a pale yellow. The trade demands white hats, however, and it is necessary to bleach the straw to that color. A few years ago, when the industry was young and the mackinaw hats were popular, there was no bleaching. Then, with the increase in the sale of the hats and the introduction of the foreign braids, there came a demand for white straw and the bleaching process was introduced. The braids were washed in a weak acid solution and were then hung on the roof to dry in the sun. It was claimed that by that process the best results were obtained.

But these methods of bleaching did not produce the white hat, and to keep even with the demand the hatmakers cast about for another method, finally adopting the tank and dryer process that is now generally employed. Strange to say, the new method is much slower than the old, taking three or four times as long to get the straw the right color, but at the same time the straw is bleached far whiter, although the life of the color is far less than by the old method.

The component parts of the bleach are a trade secret and a valuable one. A firm organized a couple of years ago paid $3,000 for the formula of such a bleach so one can understand why it is such a secret. The straw is taken from the stock room and placed in a vat containing the bleaching solution. It remains there from three to 14 days, dependent upon the kind it is. Then the braid is placed in huge dryers until it is perfectly dry and then it is subjected to a sulphur smoke which prevents it from mildew. The braids are then sorted out and are ready for making into hats.

One of the first steps towards making straw hats is the making of the patterns or shape moulds. These form a most important part of the equipment of the factory and they represent the expenditure of much time and money. The first step is to cast a block of plaster of paris and this is whittled by hand to the shape desired, a standard shape or one that the manufacturer thinks will be a novelty and cause a run on. The staple shapes, it may be said, are the straight crowns with straight or curled brims and slightly tapered crowns with curled brims.

When the plaster of paris model is approved a casting of it is made in zinc, which is then finished off smooth by grinding and polishing. Zinc is used because it is non-corrosive. Each model requires half a dozen or more shapes and it is estimated that it costs $300 to make up a single set. When it is understood that the average factory carries about 400 different shapes and that it takes about 125 tons of zinc to make up the patterns or shapes for a 50,000-dozen plant the importanne of this department can be appreciated.

The 400 shapes, however, do not represent as much of a range in models as may be supposed, for every size of each style of hat has its several shapes in each of the departments through which it goes in the course of making. The styles are, with few exceptions, similar to each other, but there may be a difference of an eighth of an inch in the height of the crown or the width of the brim. Even the slightest difference requires a full set of shapes.

Most of the work of making hats is performed by female labor, and the first department is the sewing hall, whence the braid goes after it has passed through the grading following the sulphur bath. The hanks of braid are given to girls who, sitting at power machines, sew them into hats. The first step of the sewing is the making of the tip, or button, which is the center of the crown. This button is formed and sewed by hand. Then it is placed in the sewing machine and rapidly becomes a disk.

After the disk has reached the proper size for the crown required, the girl deftly turns it and forms the side. The girl becomes so expert that they can tell to a nicety just how many braids must be laid for a given size, but, now and then, they lay the hat upon a shape to see that it conforms.

The sewing machines are operated at a speed ranging from 1,500 to 3,000 revolutions per minute and it is possible for a girl to sew up from one to 15 dozen hats per day of nine hours, depending upon the quality of material used. On extra fine work one dozen hats a day is considered fast work and the pay is better than that of the operator who produces a greater number of the more common hats.

After examination the hats are sent to the sizing room where they are treated to a bath of gelatin. This liquid is carefully prepared and it is used in different strength for the "stiff" and the "soft" hats. In the former class are those hats commonly called yachts. After having been sized the hats are allowed to dry and they are then sent to the blockers who, after softening them by steam, carefully fit them to their respective shapes. This work is done by hand, as is the pressing with wet cloths and hot irons.

The latter process not only shapes the hat but draws the gelatin through the fiber of the straw and at the same time removes the surface gelatin. From this process on there are, in the next step of completion, two methods—hand and machine. In the former process the hats are first pressed with a wet cloth and hot irons, and then polished with the bare hot iron.

In the machine method the hats are put upon shapes and are set in hydraulic presses under a pressure of from 50 pounds to 300 pounds to the square inch, according to the hardness of the braid. From the presses the hats go to a brimming machine, where only the brims are subjected to pressure. The crowns are given a polish by hand and the hats are then ready for the next step, which is trimming.

The trimming department carries on a varied line of work, from sewing reeds in the leather sweat bands and sewing the top and side lace together to assembling the parts in the hat. This work is divided among five or six sets of girls, each set doing a particular portion. One girl does nothing but reed the leather, another sews the top and side lace, another sews in the reeded leather, while another puts in the top and lace.

There is another table to which the hat then goes, and that is for the ribbon and bow. Both are put on separately, the ribbon first and then the bow.

The hats, then practically finished, are once more put in the brimming machine in order that they may be trued up, for the brims have a tendency to warp, and then they are sent to the packing room. There they are put in pasteboard cups, and then into large hat boxes, when they are ready for final packing in cases and shipment.

There are comparatively few people in the hat business who can say definitely just what a "size" means. According to an authority a "size" is equivalent to a given circumference in inches. For instance, a size seven hat is just seven inches in diameter, or equivalent to the circumference of a circle of which the diameter is seven inches.

As late as 1878 all hats were sewed by hand and there were but two or three different models, the broad-brimmed, flat-crowned models holding their own year after year. It was not until that year that the late Isaac Francis introduced the sewing machine. Crude though the machine was and difficult to get the operators to understand it, it had arrived to stay. Today it is as neccessary to the business as is the straw itself.

A type of hat that has gained great popularity during the past few years is the Panama, a hat that is woven by the natives of South America and some of the West Indies. These hats are generally shipped to the United States in their rough and unfinished condition. Here they are bleached, shaped and trimmed and made ready for the retailer, who has little difficulty in disposing of them.

In every department of the manufacture of straw hats modern methods are employed and machinery, as far as possible, takes the place of hand work, although, it must be said, there is much of the work that machinery has not yet been devised to do.

Some of the larger factories not only devote attention to their principal product, but they also make practically everything in connection with it. They buy their leather in large lots in the piece, cut out their own hat bands, have their own equipment for stenciling them, have their own pasteboard plant, where they make the hat boxes, have their own printing office for printing the size numbers, labels, etc., and, in fact, have departments to provide for every feature of the business.

MISSOULIAN WANT ADS BRING QUICK RESULTS.