

MANY MILLION MILES OF THREAD MADE ANNUALLY

Numbering of Spools Interesting Process—15,000 Tons of Wood Used Yearly in Manufacturing Spools.

By Frederic J. Haskin.
Washington, March 10.—Thread is such a small article that it usually escapes serious consideration, yet it is surprising how much it takes to supply the needs of mankind. At one factory alone over 1200 different kinds of thread are made, the daily output being 15,000 odd miles. This is an average of over a 1000 miles an hour, or 20 miles a minute. Not less than 100,000 spools are used daily. The aggregate engine force amounts to 30,000 horsepower, and requires 400 tons of coal daily. This power drives over half a million spindles. The number of employees is about 10,000. The factory itself covers 100 acres of ground.

Expensive to Make Cotton Thread.

The manufacture of cotton thread, as well as linen, is confined almost entirely to large factories, as the process in both cases is such an elaborate and expensive one as to preclude the possibility of its being a profitable business when conducted on a small scale. At one time it was declared that the moisture of Great Britain, and of Scotland especially, was essential to the proper making of the thread, and that it could not be made in this country on that account. However, Yankee shrewdness surmounted that obstacle, steam serving not only to furnish the necessary moisture but heat as well, the latter being another important factor.

Pleasantness of Thread.

One of the most interesting features of thread manufacture is the numbering. The heaviest cotton thread is called number one, and of this size eight hundred and forty yards are needed to make a pound. This size forms

the basis of all the numberings. Fifty cotton is fifty times as fine, and therefore requires fifty times eight hundred and forty yards to weigh a pound. It is the same way with the larger numbers, and as the most popular grades are from twenty to eighty, it readily can be imagined how long a distance would be covered by a pound. The highest number in general use is one hundred, although for unusually fine work two hundred is sometimes used. As far as is known the finest ever made was seven hundred, so fine in fact that it was of no value as sewing cotton. A pound of this number would cover four thousand, seven hundred and seventy miles.

Much Wood for Spools.

The process of manufacturing the thread alone is not the end of the work. Spools have to be made on which to wind the cotton, and then stickers are placed on both ends. Cotton was originally sold in bales, and afterwards wound into balls as was practiced in Italy. With a view to accommodating a Scotch manufacturer in the early 80s wound the thread on a spool for his customers. For this service he charged a halfpenny, to be refunded when the empty spool was returned. Today the manufacture of spools requires about 15,000 tons of wood, which is converted into about 250,000,000 spools. The wood at first came from Scotland, but its forests becoming greatly depleted, the supply now comes from northern Europe and North America.

Thread Making in Oregon.

A new thread for weaving purposes is being made in Oregon and California. This is made from "hull" or yellow pine needles, and is used for making blankets, rattle boots and mattresses. This tree is not a "limber" product in the western sense, and the United States forest service has encouraged the industry, believing it to be beneficial to the trees. It is now being worked in the spring, and 25 cents is paid for 100 pounds. An average day's work is about 600 pounds. The process of preparing the needles is somewhat similar to the manner in which flax is done.

Linen Thread Made in 70's.

Cotton thread manufacture is closely connected with the making of linen thread so far as its history is concerned. The beginning of linen thread, in Scotland at least, is traced to Christian Slick, who in the early 70's conceived the idea of making sewing thread out of linen. The necessary apparatus was brought from Holland. The attempt proved successful, and the product, known as Bargarran thread, obtained a wide notoriety. Cotton thread being made by hand at that time was unable

to compete with the linen, but in 1768 the industry was revolutionized by invention, and since then has been in the lead. Silk thread has a large consumption. New York is the greatest port, with the sole exception of Shanghai, for raw silk in the world. Paterson, N. J., is the principal silk manufacturing center in the United States, and makes about one half of all the products used in this country. Silk culture is carried on extensively in China and Japan, and from there we get the most of our raw material. Of the cocoons used, only the perfect specimens are converted into a raw material, the others being put aside to be later converted into floss silk.

Used for Many Purposes.

Thread, both cotton and linen, is used extensively for lace making, the former also having a large demand for use as fish lines, fish nets and for sewing shoes. Lace making forms an important industry in many of the towns of Europe, and its manufacture is taught as part of the school curriculum. Nottingham makes wonderful lace curtains, a single pair having cost as high as \$5000. Hand made lace is always highly valued, but the demand for this article has increased to such an extent that machinery is now being used. The best lace in the world is the President Jefferson, an expensive lace that a lady's veil of finest quality sometimes brings as high as \$5000. Today similar machines made goods are so cheap that one can be had for \$2.

Pleasant Work.

The making of thread is considered to be both easy and pleasant work. Some of the manufacturers are trying to make the life of their employees as happy as possible. The work is such that young girls and boys can readily do it, and of the whole force a considerable per cent is young people. In Scotland a school has been erected where the girls can receive a training which will enable them to get ahead in their work. The same has been done for the boys. A home has also been built for girls living at too great a distance from the factory. Here they can board at the lowest possible rate under the care of a suitable matron. Tennis courts, cricket and football grounds are set up for the benefit of the young people, and during the year several excursions are given.

Making of Needles.

As a close companion to thread comes the needle. This is another small article which does considerable to increase the list of manufactures in this country. Connecticut produces the greatest number of these, making about 200,000,000 each year, their value being estimated at approximately over \$1,000,000. To make a needle requires 22 processes. Sewing machine needles are made in this country, but the ordinary sewing and darning needles are almost entirely made abroad, this country receiving about \$300,000 worth each year. The needle was in use in prehistoric times in all places where man clothed himself in the skins of animals or woven materials. The original variety was made of bone and ivory, and is still in use at the present time among uncivilized people.

Tomorrow—Lhasa, the Hermit City.

CITY PARK HAS ONE OF TWO ROSE TREES

Dr. J. B. Cardwell, collector of varieties of conifers, on evergreen trees, explains the rarity of the picea breweriana, a seedling of which family has been presented to the city by Oscar Heers of Taklima, Or., through The Journal, and has been set out in the city park.

"So far as I know," said Dr. Cardwell, "only two civilized members of the picea breweriana live. One is that set out in the city park. I have the other. Mine is the last of 100 seedlings. It is about 10 years old and six or seven feet high. It is well established. The picea breweriana is about extinct. It grows only in one part of the world—in the Siskiyou mountains in southern Oregon, at an altitude of 6000 feet. It was discovered by Thomas Howell, the Oregon botanist, in the 70's. It was named for Professor Brewer, the great botanist. The picea breweriana is one of the most striking and symmetrical of all conifers. It is of rich green color and has the drooping habit. A green cone grows on the under side of the limb and droops and sways in the breeze. The picea is essentially a character tree.

COMPETING COASTERS PUT UP TO UNCLE SAM

(Washington Bureau of The Journal.)
Washington, March 10.—Bates and Chesbrough and Sprickles of San Francisco have submitted proposals to the secretary of war to put on steamers on the Pacific coast to run to Panama, in accordance with resolutions adopted by all chambers of commerce of the coast cities, including Portland. The steamers would compete against the Harriman system's Pacific Mail line. Bates would give service once every two weeks.

COBURNS TO CONTEST AGED UNCLE'S WILL

San Francisco, March 10.—Carl and Arvo Coburn, nephews of Loren Coburn, an aged millionaire of Escadero, who married his dead wife's sister recently, asserted today that they would proceed with two separate actions against their 84-year-old uncle to have him declared incompetent.

COUNTY SEAT WAR IN WASHINGTON

(United Press Leased Wire.)
Wilson Creek, Wash., March 10.—Grant county is preparing for a county seat war. When the county was formed last year Wilson Creek slumbered on and allowed Ephrata to get the county seat. This winter Adrian, a new town, began to circulate petitions for the removal of the county seat. Now Wilson Creek is in the fight. A meeting will

For the Woman Who Has Beautiful Hair

(New York Theatrical News)
The beauties in the Anna Held chorus are famous for their pulehrude. Their coiffures add a great deal to their charms. How they can "manage" such abundance of beautiful tresses day in and day out, keeping always the same well-groomed appearance, is beyond the ken of the average woman. But, listen while I whisper these girls depend altogether upon dry shampooing to keep their hair fine and glossy. They mix 4 ounces of powdered orris root with 4 ounces of ether, and they are prepared for a season's shampooing. Once or twice a week they sprinkle a tablespoonful of this mixture on the head and then brush the powder well through the hair. That is all there is to it, and they have escaped the bother and discomfort that accompany washing, rinsing and drying the hair, together with the danger of catching cold. The wonderful results they achieve with therax convince me that it is the only thing that can grow hair, for their hair is long and abundant in addition to being fluffy and lustrous.

STOMACH GAS, INDIGESTION, HEARTBURN AND HEADACHE GO.

A little Diapepsin regulates bad Stomachs in five minutes.

Every family here ought to keep some Diapepsin in the house, as any one of you may have an attack of indigestion or stomach trouble at any time, day or night. This harmless preparation will digest anything you eat and overcome a distressed, out-of-order stomach five minutes afterward. If your meals don't tempt you, or what little you do eat seems to fill you, or lays like a lump of lead in your stomach, or if you have heartburn, that is a sign of indigestion. Ask your Pharmacist for a 50-cent case of Pape's Diapepsin and take a

little just as soon as you can. There will be no sour risings, no belching of indigestible food mixed with acid, no stomach gas or heartburn, fullness or heavy feeling in the stomach, Nausea, Debilitating Headaches, Dizziness or intestinal griping. This will all go, and, besides, there will be no sour food left over in the stomach to poison your breath with nauseous odors. Pape's Diapepsin is a certain cure for out-of-order stomachs, because it prevents fermentation and takes hold of your food and digests it just the same as if your stomach were fit there. Relief in five minutes from all stomach misery is at any drug store, waiting for you. These large 50-cent cases contain more than sufficient to cure almost any chronic case of Dyspepsia, Indigestion or any other Stomach trouble.



Stops Neuralgia Pains

HERE'S THE PROOF.

MR. J. C. LEE, of 1100 Ninth St., S.E., Washington, D.C., writes:—"I advised a lady who was a great sufferer from neuralgia to try Sloan's Liniment. After one application the pain left her and she has not been troubled with it since."

MRS. DANIEL H. DIEHL, of Mann's Choice, R.F.D. No. 1, Pa., writes:—"Please send me a bottle of Sloan's Liniment for rheumatism and stiff joints. It is the best remedy I ever knew, for I can't do without it."—Better than plasters—

SLOAN'S LINIMENT

is the best remedy for sciatica, rheumatism, backache, sore throat, stiff neck and sprains.

Better than Pills for Liver ills.

Pills gripe—they act violently and all they do is to move your bowels yet at that they are not thorough.

Nature's Remedy
NR-TABLETS-NR

Does the work easily and gently (never gripe) of sickles—but when you get through you're well and all the later-related organs of your body are in a healthy condition.

This is the Tablet that cures constipation, liver and stomach troubles, rheumatism, indigestion, the dizziness, dyspepsia, biliousness and indigestion.

Easy—Sure to Act
Get a 25c Box

SKIDMORE DRUG COMPANY

DID PRESIDENT BUNK POOR OLD UNCLE JOE?

(United Press Leased Wire.)
Washington, March 10.—Members of President Taft's official family are flitting over a slight misunderstanding between Taft and Speaker Cannon over an engagement to go for a ride in the White House automobile.

Just before the house adjourned the president called Cannon over the telephone and told him he would pass the capitol building in "about 10 minutes" to take the speaker for a spin.

Cannon was on the steps at the appointed time. He was there 25 minutes later, but the president had not made an appearance.

The speaker then became slightly peeved. He turned a had smoked stogie upon the steps and climbed into his own machine.

He then left, after instructing a messenger to tell the president that he had waited as long as he could. Taft did not put in an appearance.

ANNA MUST PAY UP MORE ANCIENT DEBTS

(United Press Leased Wire.)
Paris, March 10.—The Duchess of Talleyrand, formerly Countess De Castellane, has been ordered by the civil tribunal to continue paying the \$560 annuity to Count Bon's parents, which she contracted to pay. Shortly after her marriage with Bon, the duchess, who was Miss Anna Gould, signed the contract. At present the payments are \$13,500 in arrears. This sum was also assessed against the duchess.

Countess De Castellane has borne the new title of duchess since the death of Prince Helle de Sagan's father, the Duke of Talleyrand.

The judge who decided that the duchess should continue the payments said: "I am sorry that Bon squandered \$12,000,000 of his wife's money. That, however, does not relieve her of the binding effect of the annuity contract."

Prince Helle de Sagan may never come into the enjoyment of the estate in Prussian Silesia which he recently inherited on the death of his father, the Duke of Talleyrand. Disputes from Sagan, where the estate is situated, say that bankruptcy proceedings have been instituted against the prince, or the duke, as he now is. The claims of De Sagan's creditors, it is said, are sufficient to take the entire estate. The duchess, it is said, will still satisfy the creditors out of her allowance, as she has always been desirous of owning the famous estate.

Spring "Nineteen-ten"

An Exhibition of New Spring Styles That Amounts to An Exposition

As the eye is the mirror of the soul, so the show window is the mirror that should reflect the innermost recesses of the store. A glance at our windows will show you a reflection of spring styles that is truly marvelous. Even the spectacles of pessimism cannot disguise the fact that our collection of snappy spring styles is the largest and best ever assembled under one room in Portland.

We Wish to Call Especial Attention to Our Queen Quality Shoes at \$3.50

They form a line of which we are justly proud. Not a shoe in the lot that doesn't look like "five dollars." It is in this line that our "close margin" method of doing business can best be appreciated.

This shoe is so good we carry it in four leathers—patent kid, dull French kid, gun-metal and suede. Comes with smoked pearl buttons—cloth and leather top—medium-weight sole—

\$3.50

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