

WATCHES MADE CHEAPER IN U. S. THAN ELSEWHERE

Many Women Employed in
Factories—\$8,000,000 Paid
in Wages Annually—Value
of Output \$21,000,000.

By Frederic J. Haskin.

Washington, Feb. 12.—Although probably the last country to take up the manufacture of watches, the United States today is making them more cheaply than any other nation. There are about 42 establishments in this country that make either watch cases or the movements. The capital involved in this industry is over \$32,000,000, while the number of people employed is nearly 15,000. These employees, about 80 per cent of whom are women, get an average of about \$1,000,000 in wages. It is estimated that the value of the yearly output of these factories, including custom work and repairing, is nearly \$21,000,000, while nearly \$8,000,000 is spent annually for materials and incidental expenses.

No Dust, Plenty Light.

The watchword of a watch factory is cleanliness. In the production of the numberless tiny parts which go to make up the whole, dust would mean ruin. The majority of watch factories are surrounded by lawns—in some instances parks. The building itself is composed, in so far as possible, of glass, the brick work being only enough to support the panes. This is to afford all the light possible, and in addition to this innumerable lights burn all day inside the building.

Making a watch movement is not a simple process. There are an average of from 150 to 175 distinct parts to every movement, while to make a complete movement necessitates nearly 4000 distinct operations. In this process many parts are needed which are in themselves wonders. The smallest screw used in a watch movement weighs one-thirtieth of a pound and has a thread of 360 to the inch. The wire of the hair spring, which is a foot long, weighs but one-fifteenth-thousandth of a pound and is reputed to be, weight for weight, the most expensive product in the world.

Delicacy of Jewels.

Jewels, first used as pivot bearings in the seventeenth century, are another portion of the work which is very delicate. A pallet jewel weighs but one-hundredth and fifty-thousandth of a pound, while roller jewels weigh even less. There are three kinds of jewels used in making a watch, according to its class. The best are sapphires and rubies, the second crystal, and the third garnet.

A large portion of the work lies, not in making the watch movement, but in making the various parts which are afterward to be put together. In the matter of screws alone there is much to be done. Time was when these were made by hand, a day's work being from 800 to 1200. With a daily output of 2500 movements, each one of which required from 20 to 50 screws, would mean that about 80 men would have to be employed in the making of screws alone. Today a machine is used which turns out daily from 4000 to 10,000 of these, and requires the attendance of but one person.

America Exports Machinery.

It was an American who first proposed the use of machinery in the making of watches. This was Aaron L. Dennison of Boston who, in 1850, opened a watch factory in partnership with Howard and Curtis, at Roxbury, Massachusetts. Up to that time watches were all made by hand. Switzerland, which gained the reputation of being the watchmaking country of the world, made all her timepieces not only by hand, but certain communities made one part, while others constructed different pieces. Generation after generation grew up as expert watch makers, being taught the art when children. All these communities making different parts were visited over and over and their secrets collected. Then still another community, skilled in the art of putting the parts together, was needed to complete the work. Today the custom is no longer prevalent as machinery has been installed in all large watch making centers. In addition to this schools have been opened to teach the making of watches by machinery.

Best Clock in Earth.

No matter how reliable a watch or clock may be there is sure to be the smallest fraction of a second's difference between it and the real time—the true timepiece in the earth. According to Professor Newcomb the earth has not altered its course one-hundredth part, probably not one-thousandth part, of an inch since the beginning of the Christian era. The direct effect of this rotation is the apparent revolution of the stars across the sky. Every complete star, and there are about 600, has its position carefully determined by right ascension and declination, and from a prepared catalogue the astronomer can ascertain just what time it is by the passage of a star at a certain meridian.

Exact Time Sent Out.

From the various observatories all over the world, the principal one in the United States being the Naval Observatory at Washington, D. C., the correct time is communicated twice a day, five minutes before each of these messages is sent every wire in the country is opened, and every operator stops sending messages. Another manner of announcing this exactly is by time balls. These are placed on the tops of buildings in all the large cities of the United States, and at the exact second the time is sent from the observatory these balls drop.

No Exact Time at Japan.

There is one country in the world where no matter how careful the astronomers are, or how well made the clocks or watches, the proper time cannot be kept. This is Japan, and the trouble is caused by the frequent earthquakes which occur in that country, there being a movement of the earth about every three or four days. The worming out of this obstacle has been undertaken by astronomers, and a way has been devised of keeping correct the observatory clock at Tokyo. Whether or not this device will prove a permanent means of having correct time cannot be ascertained until it has been in use for some time.

Whether made by hand or by machinery the construction of curious and ingenious watches has always been a source of pleasure to those concerned in their making. In the hundreds of years in which watches have been made, there have been numerous specimens which have been wonders of inventive genius and which have consumed years in completing.

Perhaps the most expensive watch ever made was one which sold for

SUPREMACY WAIVES; NEW YORK YIELDS

Metropolis Takes Steps to Regain Former Control of Nation's Trade.

(United Press Special Wire.)
New York, Feb. 12.—New York city is at last fighting with its back against the wall to regain its rapidly vanishing commercial supremacy. The boast for years of the native city, whose horizon is bounded on the north by the Harlem river, on the south by New York bay, on the east by the East river and Long island sound, and on the west by the Hudson river, that "New York leads the world," and "old Father Knickerbocker" controls the trade of the nation, is rapidly becoming nothing but an empty echo.

That this is realized by the commercial bodies of the community is shown by the action of the chamber of commerce. It is preparing to enter on an open fight with the interstate commerce commission, which it asserts is prejudicial against the city; it has appointed a committee to consider the improvement of terminal facilities and the lowering of port charges, and to investigate railroad rates between New York and the interior with the object of "removing discriminations" against this city.

Committee to Wage
And these committees have full power. They are authorized by their creators to take any steps necessary, to spend any money necessary and to employ any counsel needed to give New York a trifle the best of it over her more enterprising rivals on the Atlantic seaboard.

New York city has been depending on the completion of the new barge canal from Buffalo to the Hudson river to get back much lost trade. This canal will not be finished until 1914, and the committee which is considering the matter has just discovered that the trade of the Erie canal has been diverted to Philadelphia, Baltimore and Norfolk to such an extent that it is unlikely that the new canal will result in the recovery of one-tenth of it.

In 1889 the Erie canal between Buffalo and the Hudson river carried 4,498,361 tons, or 18 per cent of the total traffic eastward from that city at the end of the great lakes. In 1908 it carried only 2,385,491 tons, or less than 5 per cent. Commercial statistics of the river engineers for the upper Hudson river, into which all of the Erie canal traffic is diverted, shows a falling off in traffic of nearly 75 per cent. And this loss is all credited to New York city.

Facilities Inadequate.
The New York port facilities, as they exist today, according to a member of the committee that is now investigating the matter, are far from being equal to the present demands. They are the outgrowth of conditions as they existed from 30 to 50 years ago, and the committee has already discovered, it is admitted, that they must be radically revised and modernized.

There is more at stake than appears at the present time. With the opening of the Panama canal and the diversion of traffic through the big ditch there, there will be an unholy scramble for business by all of the coast cities. Baltimore, Philadelphia, Norfolk and all of the far southern cities are already at work and moving heaven and earth to have their ports modernized and brought up to date, so that when the canal is finally opened they will be the real beneficiaries. And you will find that the railroads of the country will do everything in their power to aid these cities and to work against New York.

A Curious Fact.
A curious fact concerning timepieces is that the Roman numeral is not used for the fourth hour as in the case of all the others, four ones being substituted. This is said to have resulted from a whim of Charles V of France, who, on being brought a clock he had ordered, remarked that there was a mistake in the lettering of the dial. "Wherein?" asked the maker. "The four should be four ones," "You are mistaken, your majesty," replied the watchmaker. "I am not," stoutly affirmed the king. "Have it figured at once." Since this incident the figuring of all clocks and watches numbered with Roman numerals shows this eccentricity.

Watch That Strikes.
At a jeweler's in Saco, Maine, there is a watch as large as a baseball in circumference and about half as thick. This extra thickness is caused by an attachment which strikes the hours. It is of heavy silver and was bought at a Chinese pawnshop in the island of Sumatra in 1855. It was designed for a powerful Batak chief as a reward for certain valuable concessions granted to the English. How it found its way to the pawnshop is not known.

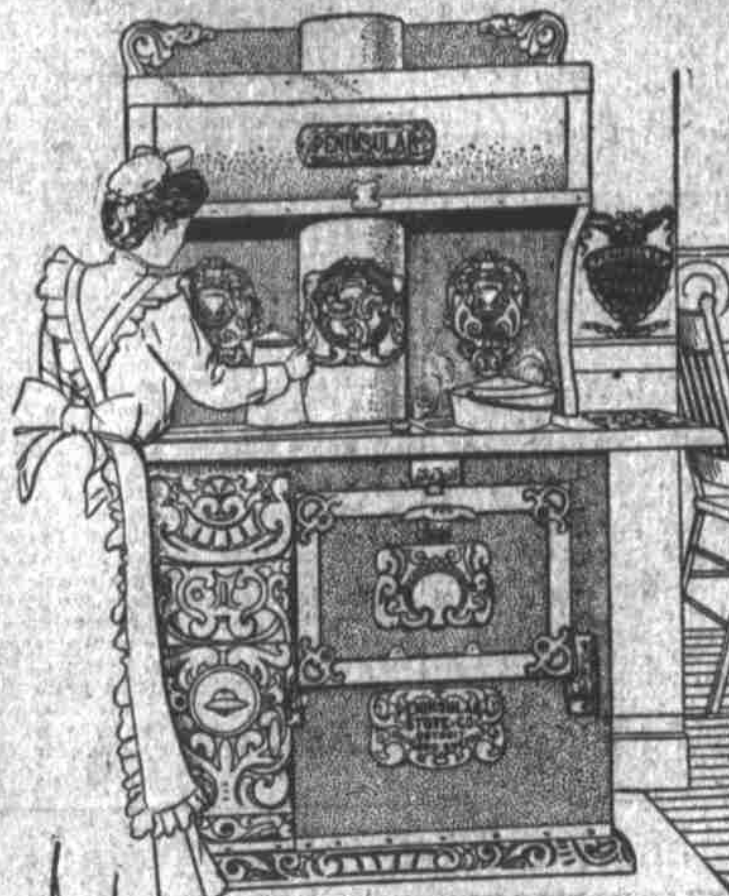
Verses in Watch.
Father Alexander, a Catholic priest of Pittsburgh, Pa., is the possessor of a curious watch supposed to have been made about 1735 by Charles Haylor of London. It is a key winder, with an open face and bull's eye front. Its value lies in an inscription which is written in the inside of the watch to the work. It reads: "Could but our tempers move like this machine, not urged by passion nor delayed by spleen, but true to nature's regulating power, by virtuous acts distinguished every hour, then health and peace would follow as they ought, the laws of reason and restraint of thought, sweet peace to pass the present moments o'er, and everlasting joy when time shall be no more."

Largest in World.
A few years ago an American watch company made what is claimed to be the largest watch in the world. It was designed to advertise a new model made by that company. It cost several thousand dollars, and its manufacture required special tools and machinery. It is 10 times as large as the model it represents, and is perfect in detail. The movement is two and a half inches thick. The watch has no dial, as the intention is to show the action of the stem-winding and stem-setting mechanism. It stands on a bronze pedestal, and from base to tip of winding crown measures 26 inches.

Tomorrow—The Roosevelt Hunt.

A Dime a Day Will Do It!

—and we make you a present
of the bank to hold your dimes



Prices \$40 to \$55

This little cash register savings bank will be given free to all who purchase THIS WEEK, on a special payment plan, one of our celebrated

"Peninsular" Steel Ranges

The "Peninsula" Steel Range is made by the largest and most complete stove foundry in the world. This celebrated range is noted for the thoroughness of its construction, perfect baking. It has two walls of cold rolled steel and a center wall of heavy asbestos board, and all are hand riveted together with cone head rivets — it cannot warp.

The top is built on the sectional plan and will not crack. The range is built on a very pleasing design and nickel plating is not overdone. We sell them on very easy terms—a small payment down, then

Save a Dime a Day and
Make Monthly Payments



Given Free!

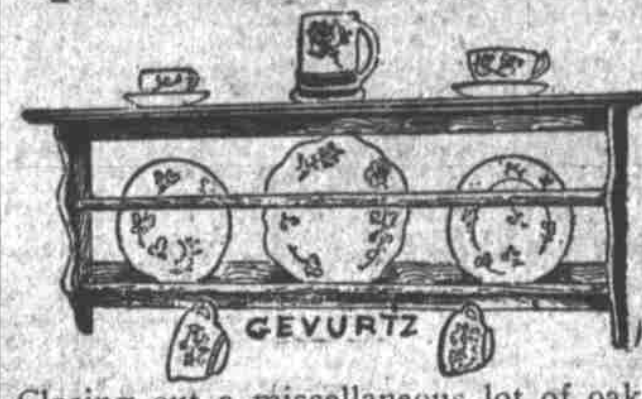
These little Steel Safes are 4x4 inches in size and will register every deposit up to \$9.99, and look just like the cut. We are giving them free of charge to all who purchase a Steel Range on our easy payment plan. They will aid one in forming the saving habit. Place one of these little safes within reach and drop your dimes and nickels therein, and at the end of the month you'll find your range payment awaiting you. Try it.



A Fine Oak Dresser \$8.75

No. 7k—This Fine Dresser is made of Pacific oak, polished. Has two swell top drawers; mirror 18x28 inches. A dresser worth \$16.50 and has always sold for that price. A job lot purchased from a local manufacturer enables us to make this special low price.....\$8.75

Specials in Plate Racks



Closing out a miscellaneous lot of oak plate racks, at less than original cost; in golden and weathered finish, solid oak.

\$4.00 values, special at ..\$2.75
\$2.50 values, special at ..\$1.25

Specials in Portieres

This week a large line of Fine Tapestry Portieres will be placed on sale at nearly half price. If your portieres need renewing, don't miss this opportunity. They were purchased at a big snap, and we'll make a special of them. You'll want new portieres after the spring housecleaning, no doubt. You'll never obtain better bargains than these.

\$9.00 Silk Tapestry Portieres, several colors from which to choose\$5.75
\$6.00 Silk Tapestry Portieres, special at\$4.25
\$5.00 Portieres, all colors, special at\$3.25



Regular \$75 Parlor Suits Special price \$45

No. 3018—Odd parlor suites sold out at great reductions this week. Frames of genuine Cuban mahogany, carved like cut, upholstery of best steel spring construction, coverings reversible of high grade verona, guaranteed to wear well and give perfect satisfaction. Regular \$75.00 values for...\$45

No. 130—Very artistic frames, spring construction, velour coverings; regular \$18.00, special\$12.50

The "Gevurtz Special" Sewing Machine for \$25

Elegant oak case, drop head, high arm machine, with all the latest improvements—equal to any \$60 machine on the market. All attachments worth \$5, given free with each machine sold. Thousands have been sold in Portland. Pay Only



\$1.00 Down
And Then Pay But
\$2.50 a Month

Homes Furnished on Easy Terms

Princess Dressers for \$15

No. 802—Made of finest eastern oak, three swell front drawers, large oval French bevel plate, 16x36 inches in size, very attractive models in finest quarter-sawn oak, that sell for the regular price of \$21; Gevurtz Brothers' great special sale price, only



\$15

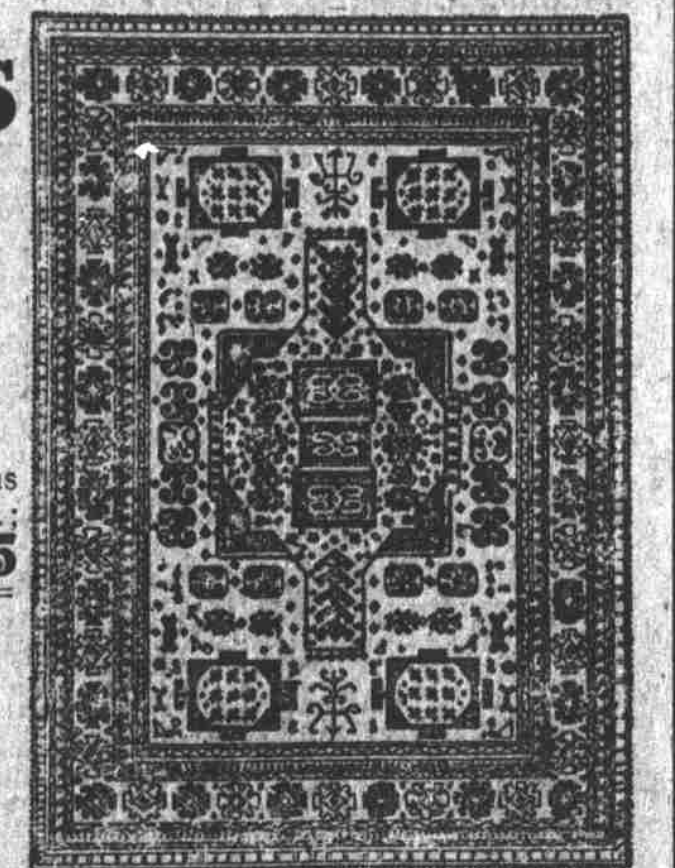
Sale of Rugs

9x12 Tapestry Brussels
Rugs, \$15.00 Values for
\$10.65

Beautiful oriental and floral patterns, in tans and greens, red and greens, browns, etc.; worth and priced regularly at \$10.65
\$15; Clean-Up Sale price\$10.65

\$20.00 Tapestry Rugs, 9x12 feet,
for\$15.45

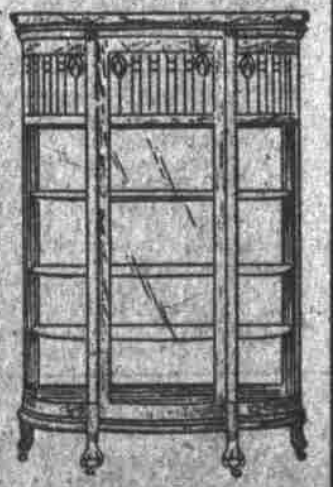
Sanford Axminster Rugs 9x12 ft.,
\$35 and \$37.50 values, for \$22.50



An Elegant China Closet at \$45

REGULAR \$65.00 VALUE

These splendid China Closets have double thick, bent glass ends and doors, elegant art glass top, five large shelves, hand carved front feet, 5 feet, 8 inches high, 3 feet, 8 inches wide, made like the cut; regular \$65.00 values, to close out the price is reduced



\$45

Gevurtz Bros.
Corner East Burnside and Union Ave.