

Egyptians First People To Make Glass

(Continued from last week)
had lost their fortunes in the Revolution became glass-makers because, in France as in Venice, a person who was a glass-maker retained his noble standing.

The French made mirrors and some very fine old stained glass. Thevart, a Frenchman, rediscovered the art of casting plate glass, and secured for France the monopoly on that product for one hundred years.

The English, also learned the art of glass-making in time; but for many years they made very poor glass. The English were forced, because of the lack of wood, to find a new kind of melting pot for their glass; in this way they made a heavy glass which they called "Chrystal Glass." This glass was very beautiful and was soon used for making many things. Among these were crystal glass mirrors. The glass was pure white flint.

Later, the English became more skilled in the art of glass-making and by the time Queen Victoria came to the throne they were decorating their theatres with glass chandeliers which had heavy sparkling prisms dangling from them. In 1851, James Paxton, an Englishman made for the first international exhibit a crystal palace with a big glass foundation in it.

Perhaps the most natural looking of all glass articles were the flowers and animals made by the Bohemians, Rudolph and Leopold Blaschka. A collection of flowers and plants made by the Blaschkas is in the Botanical department of the Harvard University. The flowers are so perfectly made that one cannot tell them from real ones.

Now we come to the manufacture of glass.

Sheet glass from which our blown glass is made, is composed of a mixture of red lead and the finest white beach sand. The sand is sifted through closely woven cloths until it is smooth and very fine before it is used.

After the batch is mixed it is heated to a given temperature so that it will be less likely to break the clay melting pots, then it is put into the clay pots and melted.

The furnaces in which the batch is melted each have twelve openings. Within the furnaces and just below the working holes are the great clay pots of molten batch. These pots are very easily broken. Crude oil is used for heating the furnaces in the east; but in the west natural gas is used and the batch is often melted in tanks instead of pots.

To make blown glass, balls of molten glass are gathered on the end of a long iron blow-pipe.

As soon as a ball of red-hot glass is collected on the end of a blow-pipe, it is rushed off to the blower before it cools. The blower blows in the smaller end of the pipe with all his strength, and the glass immediately begins to take form. Then the blower flattens its base on a table topped with sheet iron. A short iron rod is next fastened to the bottom of the article being made so that the blower can hold it. After this is done, the blow-pipe is detached. The blower then sits down in a backless chair which has long, flat metal covered arms at either side, where he rolls the iron rod with its plastic material back and forth to shape it. He then cuts the top the shape he wants it, depending entirely on his eye for the outline. If the glass becomes hard before the article is finished, a boy takes it on a wooden fork and carries it off to a small furnace where it is reheated. Then it is taken back to the blower and finished. Next it is taken to a kiln where it is baked for three days. This process prevents the glass from breaking so easily. Most dishes are made in this way. Molded dishes are first blown as nearly the correct size as possible, then put into an iron mould and pressed into the desired shape.

Window glass is made in much the same way as dishes. It is first blown into a long cylinder. Next the cylinders are opened. This is done in two ways. The end of those made of thin glass is put into the furnace and at the same time air is forced inside through the blow-pipe, the air expands and bursts the cylinder open at its weakest end. By placing this opening down-

PRESENT COMBINED AVERAGE LICENSE FEES, GASOLINE AND PERSONAL PROPERTY TAXES PER MOTOR VEHICLE IN EACH STATE.

STATE	REGISTRATION	SALES TAX	PERSONAL PROPERTY TAX	GASOLINE TAX	TOTAL
1 FLORIDA	1.00	2.00	1.00	1.00	5.00
2 NC. CAROLINA	1.00	2.00	1.00	1.00	5.00
3 CONNECTICUT	1.00	2.00	1.00	1.00	5.00
4 ARKANSAS	1.00	2.00	1.00	1.00	5.00
5 ALABAMA	1.00	2.00	1.00	1.00	5.00
6 MAINE	1.00	2.00	1.00	1.00	5.00
7 SO. CAROLINA	1.00	2.00	1.00	1.00	5.00
8 OREGON	1.00	2.00	1.00	1.00	5.00
9 MISSISSIPPI	1.00	2.00	1.00	1.00	5.00
10 GEORGIA	1.00	2.00	1.00	1.00	5.00
11 NEW MEXICO	1.00	2.00	1.00	1.00	5.00
12 KENTUCKY	1.00	2.00	1.00	1.00	5.00
13 NEW JERSEY	1.00	2.00	1.00	1.00	5.00
14 MARYLAND	1.00	2.00	1.00	1.00	5.00
15 LOUISIANA	1.00	2.00	1.00	1.00	5.00
16 N. HAMPSHIRE	1.00	2.00	1.00	1.00	5.00
17 WASH.	1.00	2.00	1.00	1.00	5.00
18 VIRGINIA	1.00	2.00	1.00	1.00	5.00
19 W. VIRGINIA	1.00	2.00	1.00	1.00	5.00
20 RHODE ISL.	1.00	2.00	1.00	1.00	5.00
21 TEXAS	1.00	2.00	1.00	1.00	5.00
22 VERMONT	1.00	2.00	1.00	1.00	5.00
23 NEVADA	1.00	2.00	1.00	1.00	5.00
24 ARIZONA	1.00	2.00	1.00	1.00	5.00
25 WYOMING	1.00	2.00	1.00	1.00	5.00
26 CALIF.	1.00	2.00	1.00	1.00	5.00
27 TENNESSEE	1.00	2.00	1.00	1.00	5.00
28 SD. DAKOTA	1.00	2.00	1.00	1.00	5.00
29 UTAH	1.00	2.00	1.00	1.00	5.00
30 COLORADO	1.00	2.00	1.00	1.00	5.00
31 MONTANA	1.00	2.00	1.00	1.00	5.00
32 WISCONSIN	1.00	2.00	1.00	1.00	5.00
33 ILLINOIS	1.00	2.00	1.00	1.00	5.00
34 DELAWARE	1.00	2.00	1.00	1.00	5.00
35 INDIANA	1.00	2.00	1.00	1.00	5.00
36 PENNSYLVANIA	1.00	2.00	1.00	1.00	5.00
37 MICHIGAN	1.00	2.00	1.00	1.00	5.00
38 NEBRASKA	1.00	2.00	1.00	1.00	5.00
39 MISSOURI	1.00	2.00	1.00	1.00	5.00
40 KANSAS	1.00	2.00	1.00	1.00	5.00
41 IOWA	1.00	2.00	1.00	1.00	5.00
42 NEBRASKA	1.00	2.00	1.00	1.00	5.00
43 MINNESOTA	1.00	2.00	1.00	1.00	5.00
44 NORTH DAKOTA	1.00	2.00	1.00	1.00	5.00
45 NEW YORK	1.00	2.00	1.00	1.00	5.00

COMPILED FROM DATA FURNISHED BY THE U. S. BUREAU OF PUBLIC ROADS AND THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS. LICENSE PLATE AND GASOLINE TAXES. THE OREGON MOTOR SUPPLY DATA ON PROPERTY TAXES. 1927 GASOLINE TAX INCREASES ARE INCLUDED BASED ON 1926 FIGURES.

OREGON STATE MOTOR ASSOCIATION

ward it is widened to the diameter necessary. The thicker cylinders are opened by fastening a lump of hot metal at one end, this weakens them at this point. When air is forced into the cylinder it breaks open at the weak point. The opening is enlarged by cutting it round with the scissors.

The cylinder is next laid upon a wooden rest and is detached from the pipe by placing a bit of cold steel against the part of the glass that still clings to the blow-pipe. The small end is then taken off by winding a thread of not glass around it and applying a cold iron at any point the thread covers. They are now ready to be opened. This is done by drawing a diamond point along inside the cylinder.

The glass then goes to the flattener. First it is warmed in the flattener's furnace, then it is put on the flattening stone, which is covered with a large sheet of glass. Here it is smoothed with a block of wood until it becomes flat. This done, the flattening stone is moved on wheels to a cooler part of the furnace, and the sheet of glass is moved to a cooling stone. When it is cool enough it is removed and placed in a rack with other sheets.

Plate glass is made out of a different kind of sand from that used for sheet glass and it is not blown at all. The pots of molten material are first taken from the furnaces and carried on trucks to an iron casting table. There they are lifted by a crane, suspended above the table, then tilted over and the glass is poured out. The instant the material is on the table, a cast iron roller is passed back and forth over it, spreading it to uniform thickness and flattening it at the same time. The thickness of the glass is determined by the strips of iron on which the roller moves. These can be adjusted to any thickness.

From the casting table the iron goes to the annealing ovens. It comes out of these rough and irregular. This is called rough plate glass.

If polished plate glass is to be made the rough plate must be

ground down first with sand and water and then ground smoother still with a coarse emery stone and water; next it is ground with powdered emery stone and water. After that comes the smoothing process. This is done with a finer sort of emery and water. Last of all the sheet is polished with rough or red oxide, between moving felt pads.

Cut glass is made of the same material as plate glass. The design to be cut is outlined on the article in white, then the cutter places the design to be cut against an emery wheel which grinds out the grooves and figures and makes the pattern. After the design has been cut on the emery wheel, the rough edges are smoothed off on a much finer grained stone.

Glass-making has been an important industry in ancient times and will continue to be so in the future.

Columbia River ports shipped 10,000,000 feet lumber to Japan during January.

Tillamook — Good farm horses bring up to \$400 a team.

Political Announcements

FOR SHERIFF

To the voters of Columbia county: I hereby announce myself as a candidate for the office of sheriff of Columbia county and if elected I promise to administer the office as efficiently and economically as possible and to cooperate with the law enforcement officials to the best of my ability. I am a registered republican and property owner in Columbia county.

(signed)
P. A. DIXON.
(Paid Advertisement)

For County Sheriff

Ira E. McIntire
I hereby announce my candidacy for Columbia county sheriff on the republican ticket at the primary election May 18, this year.

Have been over 15 years a resident of Columbia county where I have worked at my trade of carpentry.

While always interested in public affairs have never been an office seeker.

If elected will ENFORCE ALL LAWS.
(Paid Advertisement)

For State Representative

Edison I. Ballagh
I hereby announce my candidacy for State Representative for Columbia county (20th district) on the Republican ticket at the Primary Election, May 18, this year.

The next session of the Legislature will be an important one for Columbia county as there will be a redistricting of the Senatorial and Representative districts throughout the state. Columbia county has now a population which entitles it to a State Senator and a Judgeship of its own. With my Legislative experience and wide acquaintance through out the state if elected will be in a position to render valuable service to Columbia county and the state.

Edison I. Ballagh.
(Paid Advertisement)

In the County Court of the State of Oregon For Columbia County. In the Matter of the Estate of

Martin Tobin, Deceased.
Notice is hereby given that the undersigned has been appointed

administrator of the estate of Martin Tobin, deceased, by the County Court of Columbia County, State of Oregon, and has duly qualified. All persons having claims against said estate are hereby notified to present the same, duly verified as by law required, to the undersigned at his residence, on the Pittsburg Road, within six months from the date hereof. Dated and first published Feb. 9, 1928. Last Publication March 8, 1928. W. A. Harris, Attorney. Frank J. Peterson, Administrator.

NOTICE FOR PUBLICATION

Department of the Interior, U. S. Land office at Roseburg, Oregon, February 2, 1928.

Notice is hereby given that Jacob Martala of Mist, Oregon, who, on December 7, 1922, made homestead entry (Portland No. 07343), No. 017195, for E 1/2 SE 1/4, section 31, township 6 N., range 4 west, Willamette meridian has filed notice of intention to make three year proof, to establish claim to the land above described, before K. F. Frazer, U.S. commissioner, at Yeon building, Portland, Oregon on the 26th day of March, 1928.

Claimant names as witnesses:

Alfred Parkinen, Minnie Parkinen, Iver Parkinen, O. Enneberg, all of Mist, Oregon.
Hamill A. Canaday, Register. 27-5.

Garden Bugs "Bite The Dust"

The simplest control for the ordinary run of insect pests is the "All in one" or "Three in one" dust. This dust contains the three elements essential to insect control. Arsenate of lead is a deadly poison for insects that delight in chewing holes in the leaves; nteoline for the sucking insects to which the plant juices are the bread and wine of their existence; and sulphur which controls the red spider and, in a measure, plant diseases. Control of most insect pests is not the only advantage in using this dust, says Joseph Wilcox, assistant entomologist at the experiment station. The ease of application is the beauty of it. A few puffs of dust on each plant with a small bellows duster every 12 days is usually sufficient to discourage the bug family.

March Used Car Clearance

1928 Chev. Coach, new rubber	\$485.00
1926 Chev. Coupe	\$400.00
1924 Ford Touring	\$125.00
1925 Ford Motor, A-1 condition	\$ 35.00
1923 Buick Roadster	\$275.00
1924 Overland Sedan	\$200.00
1926 Chev. Sedan	\$495.00
1917 Buick Touring	\$75.00

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Standard coupe	622.15
Standard coupe, rumble seat	656.15
Sport coupe	678.47
Tudor Sedan	622.15
Fordor Sedan	698.95
Pickup	511.51
Bumpers, extra	15.36
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Chassis and cab	649.00
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