

How Paper Pails are Made.

At a paper-ware factory in Syracuse, N. Y., intended to turn out 500 paper pails a day, the process of making is thus described in a local paper:

Rags and paper waste are steamed in vats for a few hours and then thrown into beating troughs partly filled with water. The "beating" is done by a revolving cylinder with fifty knives set at different angles. The knives reduce the rags to a dirty purple pulp and change the newspaper wrappers to a soft mass. About four hundred pounds of material are put under each beater. When paper and rags are each reduced to pulp, the opening of a trap lets it run into the stuff chest in the cellar. One part of rag pulp to three of paper is run into the chest. When pumped from the stuff chest into the trough of the winding machine, the future pail looks like thin water gruel. A hollow cylinder covered with brass wire splashes around in the trough, and the pulp clings fast to the wire. After the cylinder has performed a half revolution it comes in contact with another cylinder, covered with felt, that takes off the pulp. As the large cylinder goes down on the return trip, and just before dipping into the trough again, all little particles of pulp sticking to the wire are washed off by streams of water from a sieve. On the inside of the cylinder is a fan pump that discharges the waste liquid.

From the felt-covered cylinder the pulp is paid on to the forming cylinder, so-called. It is about the size of the paper cone cap worn by bakers and cooks, but made of solid wood and covered with zinc, with the small end or bottom part of the pail toward the workman. The forming roll drops automatically when pulp of the required thickness is wound around it. From here the now promising pail is put in the pressing machine, which looks something like a silk hat block, in six sections, with perforated brass wire upper faces. The sections move from and to a common centre, and the frame is the exact size of the pail wanted. The workman drops his damp skeleton of a pail into the frame, touches a lever, and the sections move to their centre and squeeze the moisture out of the pail. The pail is still a little damp, and spends a few hours in the drying room at a temperature of about 150. The sections of the pressing machine mark the bands which are seen on the finished pail. After it is dry the pail is ironed, or calendered, as it is called. The pail is drawn, like a glove, over a steel forming roll, which is heated, and is ironed by another revolving calender, with steam thrown on the pail to keep it moist as if it were a shirt bosom. The pail, or rather its frame, is pared at each end, punched with four holes to fasten on the handle, and corrugated, or channeled for the putting on of the iron hoops. A wooden plate large enough to spring the pail so that the bottom can be put in, is inserted, and the paper bottom held under a weight which drops and knocks the bottom where it belongs. The factory has a machine of its own invention for the bending of the hoop into shape.

After it has been cut to the proper length and width, the straight strip of iron is run over a semicircular edge of steel, on which it is held,

and drops on the floor a round hoop with a fold in the middle to catch the top and bottom edge of the pail. After a waterproof composition is put on, the pail is baked in a kiln for about forty-eight hours at a temperature between 200 and 300 degrees. It is dried after its first coat and sandpapered, and then takes two more coats of paint, with a drying between, and a coat of varnish, which is baked on, before—with its wooden handle and brass clamps—the pail is ready for the hand of the dairy-maid, hostler or cook.

Now's the Time.

The *Toronto World* says: "While great business changes are in progress, or in the first stages of their progress, let us say—there are but few people who see them, and realize what is going on. By the time that the change, either upward or downward, as the case may be, has almost exhausted itself, then everybody sees it, and can tell all about it; and the faculty of prophesying after the event comes into play, to the great self-satisfaction of the prophets. But the wide-awake business man is he who sees the change in its beginnings, and immediately goes to work to profit by it, ere it has become the common property of Tom, Dick and Harry, and everybody else. And thereby hangs a tale—perhaps.

For a period of somewhere from twelve to eighteen months we have been suffering from what is the fashion to call "depression." The depression has been nothing like that of some former experiences; still, it was not pleasant, and many men, both rich and poor, have suffered from it. Now, suppose it should turn out to be the fact that, while people still continue talking about the depression aforesaid, the thing itself is actually dwindling away, and giving place to a revival? The trouble is that too many people fail to see business depression in its beginnings; also that too many keep on talking about it after it has gone or has begun rapidly to take the back track.

We have a shrewd suspicion that, even now, while people all around us are harping on about the "hard times," some wide-awake fellows, who know better, are quietly pushing business for all they are worth, and so taking the cream of the rise, as we may say. At this very time, when croakers innumerable are exchanging such doleful greetings as "nothing to do," "no sales," "will have to discharge more men or work half time,"—there are manufacturing firms that are straining points to conceal from outsiders how much they are doing, because they do not want competitors to know what a good run they are actually having.

By the time that the croakers and the slow coaches begin to realize that times have actually changed for the better, the early birds will have half made their fortunes, or at least laid good foundations for the same. Instead of talking on continually about what most unquestionably was the case twelve, or six, or three months ago, let business men open their eyes and look closely to see what is actually the case to-day. Possibly some of those who do so may have it dawn upon them that now's the time.

Paper Bottles.

Paper bottles are now made on a large scale in Germany and Austria. The paper must be well sized. The following is said to be a good receipt for the paper: Ten parts of rags, forty of straw, fifty of brown wood pulp. The paper is impregnated and coated on both sides with sixty parts of defibrinated fresh blood, thirty-five parts of lime powder, five parts sulphate of alumina. After drying, ten or twelve rolled leaves are coated again, placed over each other, and then placed in heated molds. The albumen in the blood forms a combination on pressure with the lime, which is perfectly proof against spirits, etc.

Vanderbilt's and Gould's Predictions.

Mr. Vanderbilt and Gould indulge in very optimistic views concerning the crop and business prospects the country over. Mr. Vanderbilt believes that "by November everybody will be satisfied that the panic we have had has been a good thing for the country and a sufficient reason why people and corporations should live within their means." Mr. Gould is not so concise in the expression of his opinion, but he says practically the same thing. His advices led him to the conclusion that in both quantity and quality the country will be blessed with a phenomenal harvest, while the crop prospects in Europe are far from favorable. He says the present crop has been raised on a lower basis than was ever before known, as labor and all the necessaries of life are at bottom prices. As a result he believes that farmers can sell their products cheaper than before and still make a profit. Arguing from these conditions, he reaches the conclusion that banks, general business and railways will find themselves in better shape this fall than for many years. It is quite evident that Vanderbilt and Gould are no longer on the bear side of the market, but there are a good many thousand farmers in the West who will hesitate to believe that 60 cent wheat is the perfection of human prosperity.—*Journal of Commerce*.

Overproduction.

The cotton manufacturers of Canada are seriously embarrassed from over-production. Mr. Clayton Slater, of the Craven Cotton Mills, Brantford, gives the number of looms at 9,000; while he estimates that 6,000 looms would produce all the domestic cotton that could be consumed in the country. This estimate is based on a consumption of 15 yards for each individual of this kind of cotton. A reduced production, to four working days in the week, Mr. Slater shows would supply all that could be consumed; so that at the end of a year the existing surplus stock would be as large as it is at present. He does not favor reduced production, by two days in the week under existing management, because it would not bring the remedy required. He proposes instead an amalgamation of all the cotton companies, the different mills and machinery to be taken at a valuation; so that a single management could control the whole production. The different mills could be used for producing the class of