with a cargo of oats from a sunken canal boat. This malt house is 212 feet long and 54 feet wide, of solid blue limestone, with slate roof, iron gutters and fire-proof floors, where the barley is sprouted, after having been steeped, 500 bushels at a charge. The kilns are heated by anthracite fires in the basement, and the flues are conducted up to and form the bottom of the kilns, which are of perforated iron, so that all the air or gas of the furnace may pass out through the grain. The finished malt or dried grain can be delivered directly from the storerooms of the malt-house to the cars, which run between the building and the elevator."

THE WALTER PRINTING PRESS.

The principal merits of the "Walter" printing-press, just invented by the son of Mr. Walter, of the *London Times*, are its simplicity, its accurate workmanship, its compactness, its speed, and its economy. While each of the ten-feeder Hoe machines occupies a large and lofty room, and requires eighteen men to feed and work it, the new Walter machine occupies a space of only about 11 feet by 5, or less than any newspaper machine yet introduced, and requires only three boys to take away, with half the attention of an overseer, who easily oversees two of the machines while at work. The Hoe machine turns out 7,000 impressions, printed on both sides, in the hour; but the Walter Machine turns out 11,000 impressions complete in the same time. The rapidity with which it works may be inferred from the fact that the printing cylinders (round which the stereotyped plates are fixed), while making their impressions on the paper, travel at the surprising speed of 200 revolutions per minute. As the sheet passes inwards, it is first damped on one side by being rapidly carried over a cylinder which revolves in a trough of cold water; it then passes on to the first pair of printing and impression cylinders, where it is printed on one side; it is next reversed and sent through the second pair, where it is printed on the other side; then it passes on to the cutting cylinders, which divide the web of now printed paper into the proper lengths. The sheets are rapidly conducted by tapes into a swing frame which, as it vibrates, delivers them alternately on either side, in two apparently continuous streams of sheets, which are rapidly thrown forward from the frame by a rooker, and deposited at tables at which the boys sit to receive them. The machine is almost entirely self-acting, from the pumping up of the ink into the ink-box out of the cistern below stairs, to the registering of the numbers as they are printed, in the manager's room above.

FRAILTY OF AMERICAN ARCHITECTURE.

A correspondent of the *Omaha Republican*, speaking of the frailty of many of the public structures in America, that are built quite too light for the service required of them, alludes to the fearful accident in Montreal occasioned by a building falling with an audience of two thousand people, and seriously, if not mortally, wounding several persons.

That many large buildings fall down quite frequently, when subjected by such weights as their capacity was designed for, and sometimes with such terrible results, is evidence enough, without any comparisons with other parts of the world, that we do not build them strong enough. This is criminal culpability, which must, perhaps, be equally shared by the architects and the proprietors. Often the better judgment of the architect is overruled by the desire of the proprietor to build large and with style, at the smallest amount of expense; and the result is an insecure building. Sometimes, too, we opine, the architect is incompetent to his trust.

Wherever the fault may be, in a given case, it is a fact that we build too slightly. Much criticism has been expended on the arrangement of our tenement houses in great cities, whereby often, in cases of conflagration, they have been simply huge man-traps. But the resisting power of our great structures is little better than the arrangement of our tenement houses. In this is the radical fault of our architecture. It is one which calls for reform with the awful voice of human lives sacrificed and human bodies maimed for life. When shall we have this reform? Must the sacrifice of human life go on for many years yet? We fear so, unless architects will make themselves more familiar with the strength or materials.

CLEANING COAT COLLARS.

Mrs. C. Montrose, Md., writes: "For cleaning coat-collars and all woolen goods I recommend the Soap-tree Bark (*Quillaya saponaria*) which can be procured at the drug stores. Break a piece about two inches square into small bits, and pour over it half a pint of boiling water; let it stand an hour or two, then sponge the collar well with the liquor; a second sponging with clear water will clean it nicely. Both washing and rinsing water should be as warm as for flannel. We have, by using this bark, washed black and blue Empress cloths successfully, and have cleaned hair cloth chairs, which had been soiled by contact with the head."

There are several vegetables which are in use in different countries as substitutes for soap. The natives on the North-west coast use a soap-root; the Mexicans use one or more vegetables as soap, and the one referred to by Mrs. C., the Soap-tree bark, is largely employed by the Chilians. All these make a lather with water, and serve to remove grease without injury to the fabric. The Soap-tree bark has been used to some extent in tooth-washes and in preparation for cleansing the hair.

REMOVING RUST FROM POLISHED STEEL OR IRON.

Sometimes rust can be removed from polished iron or steel with little difficulty; but sometimes it cannot be made to disappear without polishing the surface anew. Rust is oxide of iron. The oxygen of the iron unites with the iron chemically, thus forming a thin scale on the surface, not one thousandth part of an inch in thickness. Red rust may be formed on the polished surface a thousand times without materially corroding the metal, provided it be removed soon after it has formed. The usual manner of removing red rust is to cover the rusty portion with common olive oil, and rub it in well with a woolen cloth. After