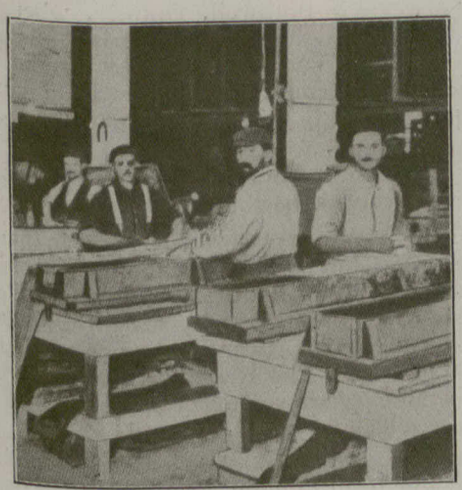
ine. It is applicable wherever plastering of any kind is required; and as it supplies its own fibers and rock dust, neither hair nor sand is necessary. It is being used in a large number of the new fire-proof buildings. Indeed, an asbestos building, from cellar to roof, may soon be possible, for recent experiements in fireproof bricks, composed of asbestos lime and sand, have been very successful, the bricks so resisting a 2,000-degree temperature as to be no more than slightly warmed. Floor tilings are a recent novelty now being made in Georgia.

But perhaps the form in which asbestos is best known to the American building and engineering trades is in the several varieties of insulating material. As a covering for steam pipes and boilers, it is in use in nearly every modern office building in the country. In this capacity it serves the threefold purpose of saving fuel, increasing power, and reducing temperature. Ordinary uncovered two-inch pipes, with steam at 75 pounds, will lose one horse-power for every 132 feet of their length; and four-inch pipe, a like loss for every 75 feet. Ten square feet of bare pipe will waste in one year two tons of coal. Asbestos pipe-coverings prevent this loss; and that is why the specifications of the best modern buildings call for every inch of their pipes to be covered. A fifteen-story building now going up in Toronto will have eight miles of asbestos pipe-covering; the United States battleship Oregon has seven and a-half miles on its boilers and steam pipes; and other buildings and ships of all kinds and types have corresponding quantities. In electrical installations, asbestos preparations are found similarly useful for insulating wires and for preventing overheating in electrical machinery.



MOULDING COVERING FOR STEAM PIPE.

This insulation of steam pipes is effected by applying a paste of asbestos fiber and magnesia to the surface of the pipe and binding it with canvas or oilcloth, or by fitting the pipes with sectional coverings, ready-made in various sizes, and bound with iron or brass bands. The latter covering is constructed of layers of plain and corrugated asbestos felt, whose numerous air-cells effectually prevent radiation.

With the better grades of asbestos fiber, still more remarkable results are obtainable. The fiber that we use in our gas grates, furnishing a very pleasant and powerful heat as the burning gas rises through it, is a fair specimen of the better qualities after being milled, but still unmanufactured. The highest excellence of the fiber consists in its fitness for spinning. For this, only the longest fibers are suitable, and they are best when softest and most elastic.

An important use of asbestos cloth is in the manufacture of theatre curtains. The value of such curtain has been repeatedly proven; and after the Iroquois Theatre disaster in Chicago, the demand for them and similar fireproof material was for a time especially active. Asbestos cloth is also made up into firemen's uniforms, consisting of boots, pants, aprons, gloves, mask, and head-gear. One or two men in each company, thus clad, can effectively do work that would otherwise be impossible. Iron workers and glass moulders wear aprons of asbestos cloth as a protection from the severe heat in which they work.

In America the increasing use of asbestos packing and pipe-coverings, particularly for office buildings and factories, furnishes a demand for the shorter fiber; in Europe, where building conditions are somewhat different, there is a much smaller market for these preparations, and a correspondingly greater demand for the spun and woven wares. In the manufacture of the latter, particularly in the English and French mil's, the fiber from the mines of Italy and Russia is mixed with Canadian fiber, the combined product having for some purposes a superiority over either alone. Much the largest part of the Canadian output, however, is used in the United States and Canada. The mines in the Quebec district are operate ed by some ten companies, in which United States capital is largely interested. The ore is milled in Canada and shipped in fiberized form to the manufactories in New York, Pennsylvania, and elsewhere, where it is made up into the finished commercial wares. One of the earliest companies to operate in the Canadian areas, and the first to introduce mechanical dressing, was a company of Scotch capitalists; and a considerable portion of the output still goes to Scotland and England. German capital is also interested. The annual production of the Quebec mines alone is about 50,000 tons.

While Quebec has practically a world monopoly of of the best grades of asbestos, and in presumably inexhaustible supply, the neighboring Province of Ontario has considerable deposits of the kindred mineral, actinolite, or hornblende asbestos. Actinolite is very similar to the chrysolite asbestos in its chemical characteristics, and is equally effective in heat-resisting, but it is not so good a non-conductor and lacks in strength of fiber. It is used to some extent in roofing material and plaster. The essential difference between the two varieties is that, while chrysolite is a hydrous silicate of magnesia, the hornblende asbestos is an anhydrous silicate of lime and magnesia, and therefore without the softness and oily feel which characterize the better grade.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The headquarters for Canada of the Royal Institute of British Architects of London, England, has been moved from Montreal to Toronto, and Mr. F. S. Baker, F. R. I. B. A., Mail building, has been appointed Honorary Secretary for Canada.

An examination for admission to the Associateship of the Institute will be held in Toronto from the 16th to 23rd of November, 1906, and candidates who are British subjects and not less than 25 years of age will be eligible.