

formed that they have never yet supplied a cone or ball for this bearing, nor ever been asked to replace one. They defy their competitors or others to show a cone out of their wheel, no matter how long it may have been in use, that shows the slightest indication of wear. They also challenge the public to destroy one of their bearings or to make it bind, no matter how tight it may be screwed up. The wheel is guaranteed to run the year without being oiled or cleaned, no matter how many miles it is ridden, or how much dirt is encountered. The bearings also are guaranteed against wear for three years. They never require to be adjusted or interfered with. The Typograph Company has a special model this year, which includes the Doolittle automatic brake. Simple back pedalling applies the brake, and when once applied, the foot can be removed and the brake remains, while forward pedalling immediately releases the brake, so that the rider has complete control of his wheel, whether his foot is on the pedal or not. This model also includes a new gear case, composed of aluminium and celluloid. It can easily be removed and leaves the chain and sprockets at all times exposed to view. It is also so arranged that the back wheel can be adjusted without in any way disturbing the case.

BOILER EXPLOSION AT ORILLIA.

The boiler at Miller's tannery, Orillia, Ont., exploded on Good Friday evening, wrecking the building and causing damage to the extent of over \$5,000. At the close of the holiday, the fireman, thinking to get an early start in the morning, filled the furnace with wood ready for lighting and in that condition left the place. It is supposed the wood took fire from the heat of the bricks from the previous firing, and that the safety valve had become stuck, preventing any release of steam. An idea of the wreck may be gained from the accompanying illustration. Two fragments of the boiler narrowly missed a train passing at the time. The crown of the boiler went through a barn a great distance from the scene, and the angle at which it struck



the building showed that it must have been thrown at least half a mile high. In view of the terrible treatment received by the crown, at the hands of the steam fury, it is remarkable how gently it handled the window sash shown in the left foreground of the picture. This sash was used as a skylight, and was fixed in the roof right over the boiler. This sash was found after the explosion in the position shown, with not a single pane of glass broken. The mere concussion of air broke the glass in several houses near by, and how this window sash with all its contents passed through the explosion unshattered is a phenomenon. One theory is that it was lifted as on a cushion of steam, and so let down flat to the ground. Even so, its safe descent is remarkable, and how it was torn out of its frame, in the first place, without breaking the glass, is still more remarkable.

It is decided that Agincourt is to be the location of the instrument of the Magnetic Observatory now in the Queen's Park, Toronto. William Menzies will be in charge. The building to be erected will consist of a circular stone underground chamber of some 30 feet in diameter, topped by a brick structure for the making of absolute determinations. In the underground room, the needles of vertical force, horizontal force and the declinator will make photographic records of the earth's magnetic currents. The new building, it is estimated, will cost in the neighborhood of \$4,000, and that the utmost care will be exercised in its erection can be seen from the fact that every stone put in the walls must be tested to ascertain that it contains no iron to disturb the delicate working of the magnetic instruments within.

Industrial Notes.

Belleville, Ont., will buy a road roller.

The new high school, at Fergus, Ont., will probably cost \$5,000.

St. Thomas, Ont., will spend \$36,000 on school buildings this summer.

The town of St. Cunegonde, Que., wants another bridge over the Lachine Canal.

Tenders are called for the Victoria Hospital, London, Ont., which is to cost \$70,000.

A Y.M.C.A. building, to cost \$6,000, is to be built in St. Catharines this summer.

Knox Church, Stratford, Ont., is to be altered and remodelled at a cost of \$7,000.

R. F. Watts, Ottawa, Ont., is said to have invented a new roller boat which is rectangular in shape.

Sarnia, Ont., proposes to bonus a paving brick manufactory which would use shale from Alvinston, Ont.

Sheldon & Son, of the Aylmer, Ont., Iron Works, have received a large order for windmills from Australia.

J. Bloom, who ran a sawmill at North Glencoe, Ont., was killed by falling on the circular saw, March 31st.

The I.O.O.F. will build a town hall in Essex, Ont., one flat of which is to be leased by the town at \$300 per year.

Lefebvre & Co., St. John's, Que., are putting an acetylene gas machine into their vinegar and canning factory.

Park, Blackwell & Co., Toronto, have decided to erect a new pork packing establishment. It will cost \$100,000.

The city engineer of London, Ont., has proposed a dyke to surround the suburb of West London at a cost of \$150,000.

The pumping plant at the high level reservoir, Montreal, requires a new large high duty pump, which will cost about \$70,000.

The contract for the new Verity Company's buildings, Brantford, Ont., was let to Havill & Whitham, Brantford, for \$50,750.

S. S. Jewett & Co., brass founders, Buffalo, N.Y., have no intention of establishing a brass foundry at St. Thomas, Ont., at present.

Ridgetown wants W. E. Hall's furniture factory to move there from Galt. It has been offered a bonus and exemption from taxation.

The Simpson-Merner Furniture Co., Berlin, Ont., of which Senator Merner is the head, will erect a large addition to its works this summer.

Extensive improvements are to be made in St. Andrew's Church, Perth, during the coming summer. It is estimated that \$10,000 will be expended.

The Sarnia Gas & Electric Light Co. has closed a contract for a modern gas producing plant, with the Western Gas Construction Co., of Fort Wayne, Ind.

E. F. Head, architect, Rat Portage, Ont., has been instructed by the school board to prepare plans and specifications for a twelve room school building.

J. E. Belcher, C.E., County Engineer, Peterboro, Ont., has prepared plans for the Mudlake bridge, partly embankment and partly floating, to cost \$25,000.

J. W. Meyers & Co., Listowel, Ont., have decided to make \$7,000 improvements to their flour mill. They will also build an elevator, 30 x 48 feet, this summer.

The incorporators of the Dominion Aluminum Roofing Company, Montreal, are: Abel Huot, Lucien Girard, Antoine Collard and Nap. Plessis, contractors.

The Leviathan Belting Co., Boston, Mass., has opened an office in Quebec, at No. 101 St. John St., and has appointed L. H. Gaudrey as its representative in the district.

At Hartland, N.B., it has been decided to form a joint stock company to build a bridge. The government will be asked to guarantee the bonds for a term of 15 years.

Another pulp mill is to be built on the Sissaboo River, near Weymouth, N.S., as the Fredericton Reporter notes that a new company has been organized for the purpose.