roads at such a rate, would, it is feared, very soon tear the tires to pieces. It would be interesting to calculate the force exerted by a four-ton vehicle at this speed in the event of meeting with an obstacle—a contingency not at all impossible.

Mr. Pennington, to whom The Canadian Engineer in its earlier days paid its compliments, is to the fore again in a characteristic exploitation. He seems to have joined forces with the equally well-known H. J. Lawson, of British Motor Co. fame. It appears that a company called the Anglo-American Rapid Vehicle Co., has been registered under the laws of the State of Delaware, the nominal capital being $75,000,000, and the working capital $10,000,000. It is understood that this company will take over the whole of the Pennington rights, both in Britain and abroad, as well as a considerable interest in the patents held by the British Motor Co., that it will also secure the Daimler patents for the United States, and organize for business throughout the world.

The weekly Horseless Age, of New York, devoted its issue of December 6th to steam, and that of January 17th to explosive motors. Some of the articles in the steam number were: Steam Boilers for Motor Vehicles, General Data on Steam and Fuel, Shell or Water Tube Boilers? Boiler Feeding Apparatus, A Practical Method of Utilizing Exhaust Steam, The Elihu Thomson Flash Boiler and Steam Vehicle System. Jas A. Wright, of Montreal, wrote, strongly commending this issue and giving his opinion that steam would find its most perfect expression through American work. The Explosive number contained articles on the Hydrocarbon Engine as a Source of Energy, Gasolene Engine Indicator Diagram, Ignition and Ignition Troubles, Vaporizers and Carburetters, Coils and Sparks, Vibration, Gasolene and Gasolene Mixtures, Multi-Cylinder Engines, Explosive Motor Data and Details. A correspondent of The Age objects to the term "Explosive Motor," saying, "An explosion does not occur in a gas engine; therefore it is wrong in principle to call it an explosive engine."

Hugh Dolnar, the able American correspondent of the Autocar, cleverly summarizes the situation in the United States thus: "Winton and Charron did not make a match, Davis and wife by dint of hard work and constant repairs of their 'National' wagon finally reached Chicago and stopped there instead of pushing on to San Francisco, the Walker $2,000 prize run was called off, and there has really been no clean cut and well defined item of autocar advancement in the United States the whole summer through. There have been charters granted, with vast nominal capitalizations, to many new companies, but when one goes out to look for the new and altogether satisfactory wagon he simply does not find it. It is pretty well understood that compressed air has something to talk about and nothing to show. The liquid air schemes, as all even tolerably well informed mechanics are aware, have not a ghost of a chance until somebody finds out something no one knows yet. The Stanley steam wagon has been delivered to many purchasers, and has given plenty of trouble to those who have tried to use it, in the way of scorched boilers and small water tank room. If a steam wagon is to be really popular it must condense its steam, and it must carry its water automatically; these two prime necessities are imperative demands, and cannot possibly be ignored. But underneath all of this seeming stagnation in automobile matters there is a fierce and stubborn contest going on between, perhaps, as many as 500 American inventors and the reluctant forces of nature. Everyone of these experimenters has set up a high standard of excellence, and is keeping well under cover, waiting the day of triumph before giving out anything to the public. We have come to pretty fully and clearly understand the severe exactions of the motor problem, and some of the Yankee mechanics will find good answer to the riddle, you may be sure of that."

—In the December issue of The Canadian Engineer an article on "Tall Buildings Under the Test of Fire," by H. De B. Parsons, was published. This article was written originally for The Engineering Magazine, but was republished in the reports of the British Fire Prevention Committee.

—Canadian trade in Australia increased between 1896 and 1898 at the rate of more than three hundred per cent.

Industrial Notes.

Tadoussac, Que., is to have a system of waterworks next year.

The Berlin, Ont., waterworks earned $5,000 for the town last year.

The Abbott-Mitchell rolling mills at Belleville, Ont., are now in operation.

The O. W. Thums Co. is starting a factory at Walkerville, Ont., for the manufacture of fly paper.

A new bridge is proposed over the Castor R.. between Carleton county and Prescott and Russell.

The new glass factory at Kingsville, Ont., started up the first week in January, using natural gas as fuel.

Five new buildings are being erected at Granby, Que., in connection with the Granby enamelware works.

Moose Jaw, Assa., is discussing the raising of $75,000 to be spent in local improvements of a permanent sort.

The W. W. Ogilvie Co. is applying for incorporation to carry on the flour milling business of the late W. W. Ogilvie.

The Shawenegan Falls Hotel Co. is being incorporated to build a $25,000 hotel at Shawenegan Falls, Que. B. Shepherd, manager.

The Hamilton Iron and Steel Company, Hamilton, has just put in a new boiler which was supplied by the Goldie & McCulloch Co., Ltd., Galt, Ont.

J. McCrois' new foundry at Lindsay is nearly completed. It is 35 x 68 feet, and two stories high. A second building, 45 x 45 feet will be put up in the spring.

The Bain Wagon Co., Woodstock, Ont., has built for the Department of Militia sixteen special wagons, which are being sent out with the Second Contingent.

The ratepayers of Cookshire, Que., have voted a $15,000 bonus to the Canada Food Supply Co., and it is expected that the company will start its cannery building at once.

The Goldie Milling Co., Highgate, Ont., has put in a Moffatt Feed Water heater. The Goldie & McCulloch Co., Ltd., Galt, Ont., is sole Canadian maker of this heater.

Mrs. Doran, of North Bay, widow of Judge Doran, formerly of Perth, Ont., has sold a water power on the Spanish River, near Webbwood, Ont., for $12,000, to a pulp syndicate.

The St. Charles Condensing Co., Ingersoll, Ont., has received some heavy special machinery from the Goldie & McCulloch Co., Ltd., Galt, Ont., for the new condensing works.

The Smart-Eby Machine Co., Ltd., Hamilton, Ont., is turning out a 75-ton refrigerating plant for a large brewery. The plant is modeled on the Buffalo Refrigerating Co.'s plans.

An elevator and flour mill company has been formed at Morinville, Alberta, under the title La Compagnie d'Elevateur et de Moulin a Farine de Morinville. The capital is $15,000.

The Walkerville, Ont., Match Co., promoted by Peter Stenius will have their new match factory running some time in March. A large part of the machinery comes from Sweden.

The present output of the Nova Scotia Steel Company is about 100 tons of steel per day. Seven hundred men are employed at the company's works at Trenton and Ferrona, N.S.

Work at the Maritime Clay Works, Pugwash, N.B., will be resumed shortly, it is said. A continuous kiln for burning brick is to be built, and it is said will take 450,000 bricks to build it.

A great deal of activity is evident at the charcoal iron plants at Radnor, Que., operated by the Canada Iron Furnace Co., and also at the Drummondville furnaces worked by the McDougall estate.

The Paisley, Ont., Pork Packing Company, Ltd., recently organized there, with a subscribed capital of $10,000, has bought the old Northern Hotel property, and intends fitting it up immediately.

J. Oliver & Sons, Ltd., has been incorporated to manufacture and deal in furniture in Ottawa, Ont., and carry on the business now being done by Jos. Oliver & Sons; the capital of the company is $90,000.