

On December 31st an engine and a freight train collided on the Victoria Bridge, at Montreal, killing a conductor and causing a wreck, which took fire and did some damage to the bridge. The driver of the engine was held responsible by the coroner's jury.

On January 3rd a collision took place near Merritton, between an express train and an unattached engine, killing a fireman and seriously injuring both engineers. The inquest, in this case, is not concluded, but the despatching office at London, concerned in the Wanstead disaster, has also to do with this accident.

On January 11th, two freight trains collided near Port Robinson, killing a fireman. This accident is supposed to have been caused by the air brakes failing to work.

Another smash-up took place near Milton, January 13th, when a light engine overtook a freight and dashed into it. The engine and two cars were badly damaged, but no one was killed, though several train hands were injured.

On January 20th a collision, at Bradford, between a light engine and two moguls resulted in the total destruction of the former. No lives were lost.

On January 21st two freight trains collided near Port Hope, and two men were killed. The fault lay with an operator, who failed to hold one of the trains at Newtonville.

A freight train, and an engine sent to help it, while running at high speed, collided near Battle Creek, Mich., killing two men and fatally injuring two others.

On January 24th, at Montreal, two collisions occurred the same day caused by fog. Some damage was done but no one seriously hurt.

On January 29th, another collision occurred near Newtonville between two freight trains, without any loss of life.

The above eleven collisions on the Grand Trunk within a month, naturally lead to the enquiry whether there is not something radically wrong with the system of train despatching, when such a succession of accidents is possible. A system of telegraph inspection, referred to elsewhere, is announced, to prevent, if possible, such disasters in the future.

On January 7th a head-on collision took place on the C.P.R., near Sherbrooke, between two freight trains. Most of the cars were thrown down a fifteen-foot embankment, a fireman was killed, and a brakeman injured.

Collisions are also reported on the Pennsylvania, the Rutland, the Boston and Maine, the Great Northern, the Missouri Pacific, the New Jersey Central, the Southern Pacific, and the Colorado and Southern, resulting in all cases but the last in more or less loss of life. An engine on the New York Central blew up and killed the engineer and fireman, and nearly wrecked a fast express. A Grand Trunk engine also blew up at Berlin Falls, N.H., killing one man and wounding another.

In connection with these accidents we observe that experiments have been made on a railway near Frankfort, Germany, with a device to prevent collisions, which is said to have been a conspicuous success. The invention consists of a small apparatus fitted to the locomotive, which gives visible and audible signals

if another locomotive is approaching on the same line of rails, or if a switch is misplaced, while in addition it also renders telephonic communication between locomotives possible. For the purpose of the experiments two locomotives were started for the same point on the same line of rails. When they were a certain distance apart, the apparatus on each gave signals to the engineers, who were then able to enter into communication. Certainly any plan to prevent such frequent destruction of property and loss of life must be hailed with satisfaction, both by the railway companies and the travelling public.

—Another evidence that the pen is mightier than the sword is shown by the fact that more steel is used in the manufacture of pens than in all the sword and gun factories in the world.

—Hartford has put down a 24-inch water main of vitrified clay pipe. This material has long been used for sewers, but it is a new departure to use it for water mains. There is one decided advantage in that it will not be subject to electrolysis, which is playing such havoc with iron pipe in so many places. It is also cheaper.

—Crude oil for smelting is a comparatively new departure, which promises to be a success. In California, which has no coal fields of its own, it is now being employed. Tests at the Selby works show that $3\frac{1}{2}$ barrels of oil are the smelting equivalent of one ton of coal, in a locality where coal is \$6 a ton and crude oil 80 cents a barrel. The use of oil thus shows an economy of 50 per cent. Oil fuel is advantageous in another respect. The oxidizing atmosphere of a roasting furnace can be maintained without those interruptions which occur when fresh coal is added. By regulating the air inlet the temperature of the smelting atmosphere can also be raised or lowered at will.

GAS FOR FUEL.

A Boston newspaper recently announced that all the gas companies in that city and its vicinity were to be merged, and would eventually furnish gas for fuel only, electricity superseding it entirely for illuminating purposes. Perhaps here lies a partial solution of the coal question, which is this season pressing itself upon public notice through the strike of the miners.

Gas is now largely produced from water, and the process has been greatly cheapened in recent times, and water is an element, the supply of which is not lessened by consumption. The general use of gas for fuel would result in a conservation of the coal supply, especially that of anthracite, which is limited. It is only a question of cheapness, for that mode of producing heat will prevail which costs least. Ingenuity will adapt appliances to its use, whatever it may be. But gas must not only be made cheaper than coal for fuel in order to take its place, but electricity must cost less than gas for light if it is to supersede it in the field of illumination. Possibly that revolution is under way, for certainly the limit of reduction has not yet been reached. The day may be at hand when our houses will be heated and our cooking be done with gas as fuel and our artificial light will come wholly from electricity. Then coal strikes will not come so close to our hearts and homes.