

which, in company with most of the leading members of the press, we have lately had the privilege of inspecting.

Since the introduction of the web presses many attempts have been made to construct a machine which would fold the sheets as they are delivered from the press, and work automatically in combination with it. Until the past few years none have succeeded with any degree of success.

Early in 1872 Mr. Walter Scott, of Chicago, perfected his now famous Rotary Folding Machine, to work in combination with Web perfecting presses. Although delayed for some time by want of capital, yet he was the first to introduce a machine with one set of folding devices throughout, which would automatically fold the sheets as they came from the printing press without reducing its speed. The marvellous success attending this machine is owing principally to its rotary motion. All the folds are made by revolving creasers, and without the usual great complication of tapes and pulleys, flying cams, vibrating creasers and switches, and an endless train of fine gearing and small wearing parts which require a man constantly watching and oiling.

Several makers have now constructed combined, printing and folding machines, but none of them seem to have the same success as Scott's machine, probably owing to the fact that they employ the old method of tapes and rollers with vibrating creasers. Some have even found it necessary to employ two or three sets of folding devices to each press so as to get up a fair rate of speed.

Mr. Scott also introduced the pasting and cutting arrangement, he having been the first to combine a printing, cutting, pasting and folding machine so that from a roll of paper perfect copies of a newspaper are produced automatically, with the leaves cut and pasted in book form.

The first impression which an ordinary spectator receives on entering the *Star* press room, after his ears have grown accustomed to the din, and his attention fixes itself upon the object of his visit, is one of absolute bewilderment. We have all heard of the famous sausage machine, where the pigs were driven in at one end and the sausages came out ready for cooking (or ready cooked, we forget which) at the other; but indeed, the results in the present instance are scarcely less remarkable. At one end of the machine, a roll of paper (five miles in length, he is told) is feeding itself (without even being driven like the pig) into the mysterious engine, while at the other, in two different places ready folded copies of the *Star* are being pushed out as rapidly as one man can remove them in armfuls. If we go a step further back the rapidity of the pro-



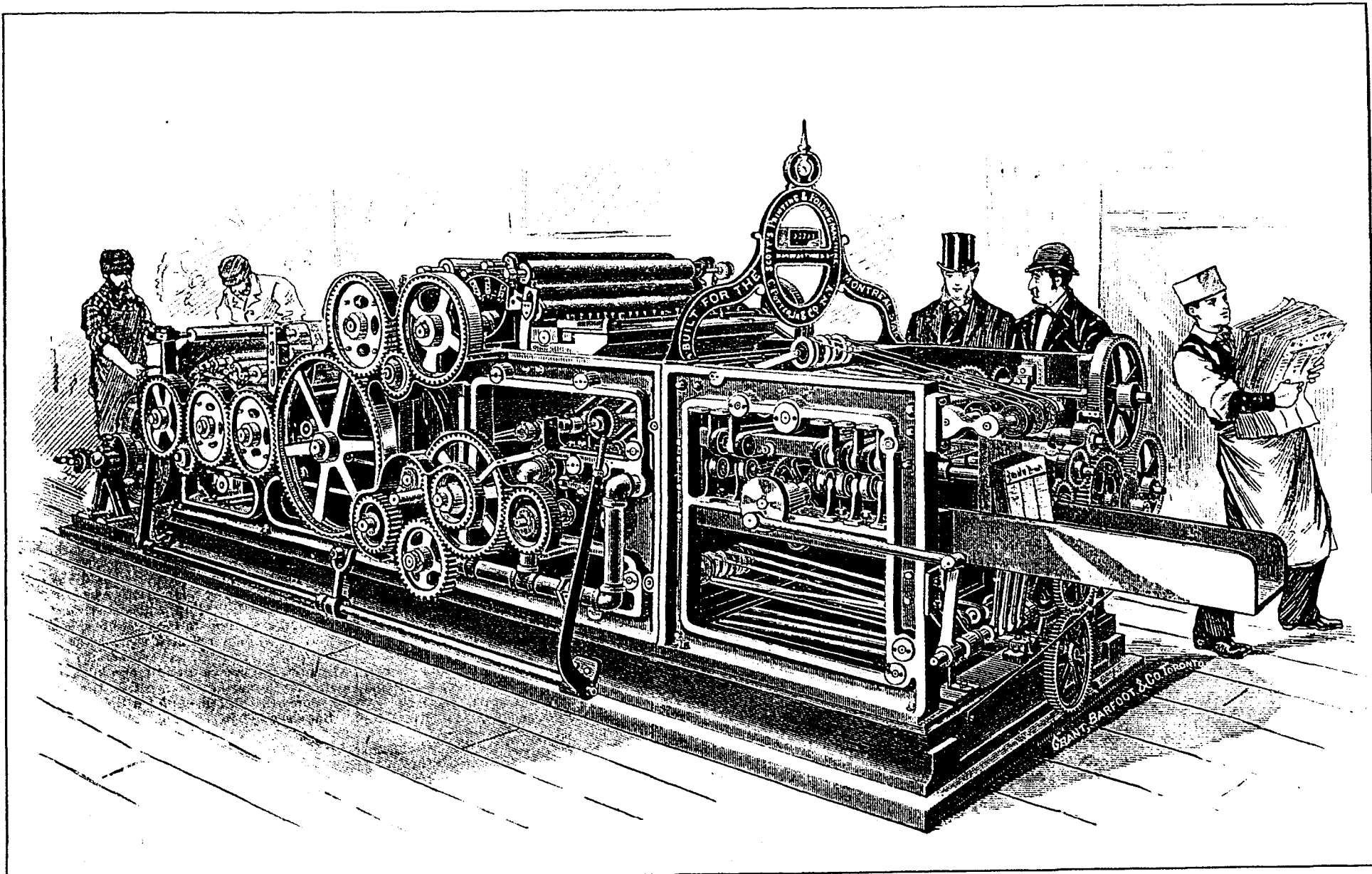
MR. HUGH GRAHAM.—PROPRIETOR OF THE "STAR."

cess is equally exemplified. The type forms, mounted on handsome brass carriages, are wheeled into the stereotyping room where, in a few minutes an impression is taken of them in *papier maché*. These *matrices*, as they are called, are laid in moulding boxes and within six minutes are cast in metal plates, cooled and trimmed ready for the press. The plates after casting are placed on the cylinders of the press, and the machine, by the mere movement of a lever, starts at lightning speed, delivering its hundreds of papers every minute. As the paper passes through the press its rapidity is so great that the eye cannot follow its twistings and turnings, up and down, backwards and forwards, here receiving the impression of the plates from the cylinders, there cut into sheets by the knife, now caught by the creasers, folded this way and that way, until a few seconds after its entrance into the maze of whirling machinery it reposes on the counter of the sale-room. But description fails us. The eye itself finds it almost impossible to take in the fact of this marvellous creation of man's genius, and no one who has not seen the press in action can possibly form an idea of its behaviour.

Those who have seen a drum cylinder printing press and a modern folding machine may obtain some idea of the astonishing capacity of the Scott presses when he is informed that the two new machines with five attendants in all, will perform in a given time as much work as fifty-eight of the drum cylinder machines and twenty-two folding machines requiring eighty-one attendants.

The most competent judges pronounce the Scott Printing and Folding Machine the very best press yet invented. Its special points of surpassing excellence are its compactness, the marvellous ingenuity of the folding appliance, speed, ease of access, and beauty of finish. The two machines built for the Montreal *Star* have been abundantly tested at a speed of twenty-two thousand perfect sheets per hour from each press. Each of the two machines in the *Star* office will print four different sizes of papers, a sixty-four column eight page; a fifty-six column eight page; a thirty-two column four page, and a twenty-eight column four page, and with both of the eight page sizes it cuts the sheets open, and pastes them together.

The time involved in changing the machines from an eight to a four page and *vice versa* is less than a minute, the whole mechanism being controlled by the simple movement of one lever. The way in which the Scott presses have bounded into public favour may be illustrated by the rapid advance in price. The two machines made for THE STAR and which cost thirty thousand dollars would, if ordered to-day, cost upwards of forty-five thousand.



THE NEW SCOTT WEBB PRESS AT THE STAR OFFICE.