

GREEK FIRE—SHELL AND SHOT.

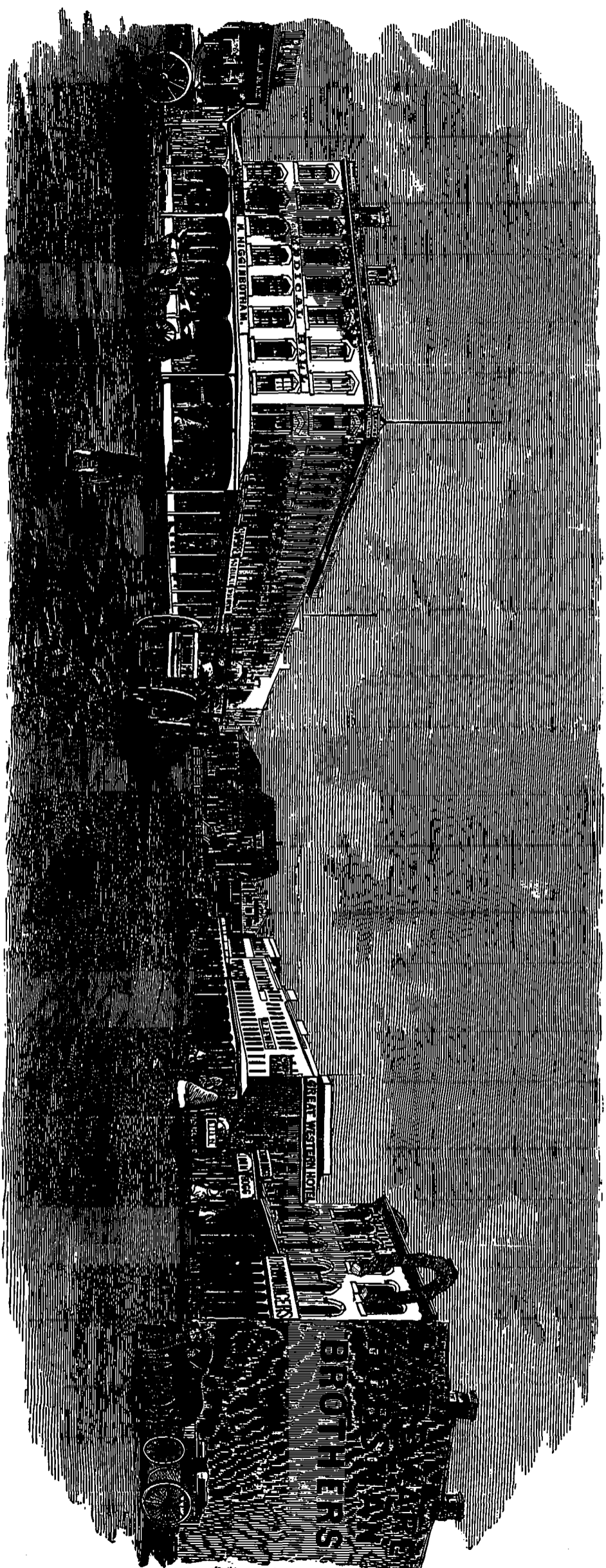
The statements which have been published respecting some incendiary shells stated to have been thrown into Charleston, by General Gilmore, seem to have set the whole country in a blaze of excitement. According to a very common mode of romanticism adopted by letter-writers, these shells have been denominated 'Greek Fire'; but there is no resemblance whatever between them and the genuine Greek Fire of ancient times. It is related that the former was discovered in 650, by a Greek engineer, named Callinicus, who in that year destroyed a large fleet of Saracen vessels with it; and it afterwards became a terror to the whole Mohammedan race. It is described to have consisted of resin, sulphur, sulphur pitch, and camphor, mixed with turpentine, and made into balls with wax. It was ignited, then fired from arrows, or thrown by javelins on board of Saracen vessels, when they were engaged with the Greeks in the hand to hand contests of those days.

The compound was very inflammable, but its chief danger consisted in being capable of burning in water. Tradition conveys exaggerated ideas respecting its destructive effects. It would not produce much fear, nor very formidable results, on board of modern war vessels. The incendiary shells now called Greek Fire were first brought to public notice during the Crimean war, by J. Macintosh, who made experiments with them at Shoeburness, England, and set inflammable materials on fire at a distance of 800 yards. A patent was secured for the invention in 1855, and the composition is described in the specification as follows:—"I fill diaphragm shells with naphtha, mixed with phosphorus and bisulphide of carbon, having a bursting charge sufficient to open the shell. When fired, the bursting of these shells scatters the contents in all directions, and the shower of inflammable material falling among troops ignites spontaneously, causing their immediate disorganization. Fired into shipping, these shells bursting on the deck below, scatter the inflammable mate-

rial, and the spontaneous combustion which results causes injury to the crew, who are driven overboard, and the vessel itself is speedily consumed. Fired into harbors, dockyards and towns, the result is alike destructive and decisive."

A little volume forwarded to us by Captain J. Norton, from Koshewville, England, 1860, contains the following description of his incendiary shell for infantry:—"A leaden rifle shell is first nearly filled with bisulphide of carbon, then small bits of phosphorus are dropped into it, and the mouth of the shell is then closed with a cork projecting like that of a bottle. A leaden shell thus charged and adapted to the military rifle, will continue to burn for ten minutes, with an intense flame which cannot be extinguished with water. Such are the descriptions of the modern incendiary shells called by some persons 'Greek Fire.' As phosphorus was unknown to the ancient Greeks, of course it is sheer nonsense to credit them with the invention of this fire. Thus far, such incendiary shells seem to have

produced but little mischief. An officer of the United States artillery lately informed us that he had made experiments and found them of no utility, owing to the inflammable liquid being so much scattered when the shells burst. He believed that if a considerable quantity of the inflammable liquid could be held together and thrown into one place, it would prove destructive, but this could not be effected with any of the incendiary shells which he had tried. For producing destructive results by setting wooden vessels, buildings and other combustible materials on fire, red-hot iron is more to be depended on than liquid fire-shells. The modern method of producing such shot is to fill shells with molten iron, then fire them from the guns. A small cupola has been put up on one of the English iron-castles for melting pig-iron, thus to fill shells; but against armor-old vessels of course such shot would be useless, as they would splutter against iron plates like balls of clay.—*Scientific American.*



VIEW OF WINDHAM STREET, GUELPH, C. W.

THE TOWN OF GUELPH, C. W.

We give on this page a view of one side, (all that can be seen at once,) of the leading business part of the town of Guelph. The cut was engraved in our office for the 'Guelph Trade-Guide,' now about to be published by Mr. Samuel Horn, one of Guelph's most enterprising citizens. The business men of the town will doubtless find it their interest to have their names on Mr. Horn's sheet.

For the information of strangers, or readers at a distance, we may mention that Guelph situated in the county of Wellington, C. W., (of which it is the county town,) lying about 30 miles N. W. from Hamilton. It is connected with Toronto by the Grand Trunk Railway; and with Hamilton by the Great Western Railway and the Galt and Guelph branch, as well as by a first-class turnpike road, over which the travel between Guelph and Hamilton passed before the Railway was built. Guelph is most emphatically a rising

and prosperous place—reason why there are some very enterprising people living there, and it has command of the trade of an extensive and thriving back country to sustain it. The site was chosen and the town laid out by the Canada Company, to whom the adjacent tract of country originally belonged, next, that is, to the Crown. The settlement has been a prosperous one in all respects, and has already left many older-settled localities far behind in improvement.

ERRATA.—At the commencement of the third paragraph of our leading article, on 'The Pursuit of Fraternity under Difficulties,' instead of 'the whole of this Russo-American affairs has the feeling, if not very much appearance,' read—'the whole of this Russo-American affair has the feeling, if not very much the appearance,' &c.

A BARRISTOR'S IDEA OF WINDOCE—One of the casualties of life.