asserted its superiority.

## HOSIERY MAKING IN ENGLAND.

THE manufacture of woollen hosiery has reached a high standard of excellence in England. It is appreciated in Canada, where, of late, the German article has endeavored to push it hard without success. Under the preferential tariff, English hosiery bids fair to secure an even stronger hold on this market, and the visit of an English journalist, recently, to one of the most extensive hosiery manufactories in England, has a special interest for the Canadian trade.

The works in question are situated at Loughborough, England, and are those of Messrs. Cartwright & Warners, one of the oldest and most solidly established hosiery manufacturing firms in Great Britain. In 1794, Mr. Richard Cartwright, the founder of this famous concern, patented a process for making warm, durable and

a woven or knited article in wool, merino, or silk, that the firm do not manufacture.

The factories, as will be seen in the illustration, stand in their own grounds, so to speak, and are conveniently situated, being in direct carriage communication with road, river and rail. This fine range of buildings was not, of course, in existence in 1794, when Mr. Cartwright patented his invention, but the blocks, one after the

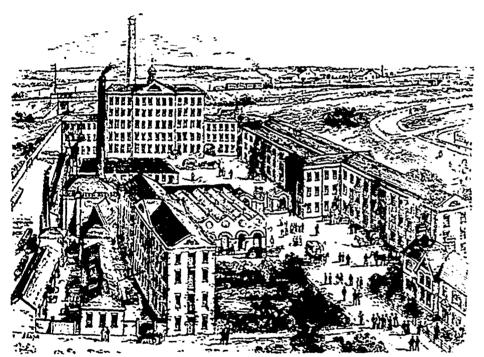
other, were added as the business grew, the increase at one time

being with a bound. This was when the merino hosiery first

of every wearer. It would be impossible to give in any available space the enormous number of shapes, sizes, varieties and qualities of material in which the underwear is made; indeed, there is scarcely

The processes of hosiery making are not familiar even to those who have sold the made articles for many years, unless they have actually witnessed the various manufacturing operations. The raw wool and cotton are brought in from abroad, are passed through the scutching machines and other appliances until ready for the carding-room. The wool being fuller of impurities than the cotton,

goes through more cleaning operations. When the wool and cotton are both ready for carding, the quality of merino to be made is decided upon, and then the yarn is spur in the proportions of each material desired. There are several processes before the yarn is spun, wound upon bobbins, and run into hanks for bleaching and dyeing purposes. Automatic machinery is employed throughout, until the hanks each contain the same exact quantity of yarn. The dyeing and bleaching being done, the yarn is then rewound upon bobbins. and the full bobbins are carried off to the store-room where they are systematically arranged, method being necessary when it is remembered that knitted underwear in every color, size, quality. and in almost every material from pure silk to cotton, is produced in these factories. The weight and consequent cost of production of hosiery goods is determined by the number and quality of threads used per inch in any given article, hence the care that is necessary



The Loughborough, England, Hosiery Works of Messes Cartwright & Warners, Limited.

unshrinkable underwear, and from this time onward the factories making up this large establishment, an illustration of which is given herewith, have been noted for their knitted goods. They are particularly famous as makers of merino and all wool hosiery, and the processes of manufacture are conducted on the most modern methods, carried out by carefully constructed machinery, improved by many of the firm's own patented inventions, both in the spinning and knitting processes. These patents and improvements in mechanism enable them to make from two to twenty-four pieces of hosiery at one and the same time, instead of the single pieces which used to be turned out in the early days.

A feature of the goods made in these English factories is that they always embody the best, newest and most artistic ideas in vogue, so that this principle of studying the tastes as well as the requirements of the times, combined with the facilities possessed by the firm of manufacturing goods of such varied elegancies, and at the same time durable, is undoubtedly the secret of the success which has attended the efforts of Messrs. Cartwright & Warners to supply exactly the respective class of hosiery which meets the wants

in the storing, sorting and selection of these bobbins.

The knitting machines of Messrs. Cartwright & Warners' factories are of the latest production and invention. The department is an extensive one, as knitting in seven different patterns is required to be done, and the firm have patented several of their own inventions both for spinning and knitting: they have also improved Lee's well-known stocking frame again and again. These mechanical improvements are worked out in the workshops of the company by their own staff. Underwear garments are knitted in sections, in sections they are washed, and, in the process of drying, are shrunk to the fullest limit.

The washing process is elaborate and systematic, special apparatus being provided for special goods. The finishing of all goods, and the pressing and ironing, is attended to with the greatest care by experts, and thus the hosiery and underwear of the firm acquired and has retained its high reputation all over the world. Messrs. Cartwright & Warners' chief specialties are the "Premier Finish" hosiery and underwear; these are all wool, and will not shrink under any circumstances. The firm have prepared, based on long experience, a printed direction for washing garmenes, and this the Canadian will be interested in and may care to send for.