

together to screen her from the too ardent and amorous glances of Adam; but the woman who invented the safety pin by bending the wire into such a shape as to prevent the point from scratching her babe, although her name be not now remembered, lived in luxury on the proceeds of her patent, and bestowed a real benefit and blessing upon all mothers and their infants.

#### AS TO STATIONARY ENGINEERS.

In a recent issue of this journal allusion was made to a petition which was then being signed, praying the Ontario Legislature to amend the Act of 1891, entitled, An Act Respecting Stationary Engineers, so as to provide that after January 1, 1895, all persons in charge of steam boilers, engines, etc., constituting a steam plant of 25 horse power, situated in cities, towns and villages having a population of 1000 or over, be required to pass an examination and obtain a certificate of competency and sobriety from a Board of Examiners of the Ontario Association of Stationary Engineers. The petition made an exception so as not to apply to or affect the operation of steam engines or boilers upon any farm used for threshing and agricultural purposes.

In our view the proposed amendment to the law is very desirable; and we regret to observe that our esteemed contemporary *The Galt Reporter* differs with us and declares that the desirability of such a regulation is more than questionable. It tells us that with the advance made in the construction of boilers and machinery of late years, the necessity of skilled stationary engineers has practically passed away; that enquiry will elicit the fact that for one certified engineer thus employed there are fifty who do not possess certificates, and that there is less danger and fewer explosions now than when we had not half the number of steam plants in the country.

Our esteemed expert-in-steam-machinery contemporary instructs us that the simplicity and excellence of manufacture of such machinery is largely the cause of this; and that it must always be borne in mind that though the person in charge may not be a certified engineer, the plant is so largely governed in its working by mechanical appliances, that had he a hundred certificates he would be of no more use than if he had none. We are further favored with the information that the substantial knowledge uncertificated engineers have of the machinery under their charge is quite sufficient for their responsibility.

All this asseveration is of a most unique and picturesque character, and displays a wonderful knowledge of facts strangely at variance from that prevailing among those usually supposed to be intelligent steam engineers. Perhaps our contemporary has obtained his ideas of the importance, or rather unimportance, of skilled engineers in connection with steam plants from his ubiquitous duties as editor, printers' devil and general utility man about the office of a newspaper where steam power is used. We are sure he could not have been led into making such silly assertions from anything any practical, well-informed mechanic or steam user may have told him. In fact, the assertions *The Reporter* makes are ridiculous in the extreme. It is ridiculous to say that the advance made in the construction of boilers and machinery of late years renders the presence of skilled engineers practically unnecessary. In some back-

woods newspaper offices where steam is used, some reckless and ignorant men may day after day jeopardize the lives of those who may venture near their places, but in all well-regulated establishments, where the proprietors have due regard for their own interests, and for the lives of others, such practices do not prevail. One may supply plenty of arguments, fortified by the experience of experts, why only competent engineers should have charge of steam plants; but all the experts in the land cannot supply the intelligence necessary to comprehend the facts. Perhaps there would be no great and irreparable loss to the community if the life of a foolish, reckless man were sacrificed by his temerity in monkeying with a dangerous thing; but it would be exceedingly unfortunate if the life of any innocent person were sacrificed by such temerity. Such a man might be quite willing to take the chances for himself, but he certainly should not be allowed to endanger the lives or property of others.

We deny the assertion, too, that the necessity of skilled engineers has practically passed away, or that where there is one certified engineer employed in our factories and work shops, in charge of steam plants, there are fifty who do not possess certificates. In fact the contrary is the case, the general rule being that only men of acknowledged ability and experience are employed in such positions. If the contention of *The Reporter* is correct, then that is the strongest kind of an argument why the law should be amended. In all towns there are steam plants located quite contiguous to streets where innocent and unsuspecting people are constantly passing. Most of these plants are enclosed from public view, and in many instances steam boilers are placed beneath the very sidewalks over which the street traffic flows in an unceasing tide all day long. We know that boilers do explode, and that human lives and much property are destroyed by such explosions, and it is not in the interests of the public that the impression is sought to be made that unnecessary risks are incurred when such steam plants are intrusted to the care of ignorant and incompetent men. If there are fewer explosions now than when steam plants were not so numerous, it is simply because the laws of the land throw out safeguards at the demand of public sentiment; not because there are no reckless and incompetent men ready to assume charge of them.

*The Reporter* displays its unacquaintance with facts when it proclaims that the simplicity and excellence of modern steam machinery render the presence of expert engineers unnecessary—that such machinery is so largely governed in its working by mechanical appliances that a substantial knowledge of the mechanism is quite sufficient for the responsibility. If this means anything it means that the student in any technical school who has acquired a knowledge of the theory of the expansion of steam, and the construction of the steam engine, and who knows where to find the throttle valve, is quite competent to take charge of a modern steam plant—that this knowledge is quite sufficient for the responsibility. Some most excellent steam plants are built in Galt, but we do not imagine that any manufacturer there, having supplied such a plant, and requested to recommend a man suitable to take charge of it, would name any one who had no greater qualification than that suggested by *The Reporter*. Can it be imagined that such a man could be placed in charge of such a steam plant