

RUSSIAN IRON

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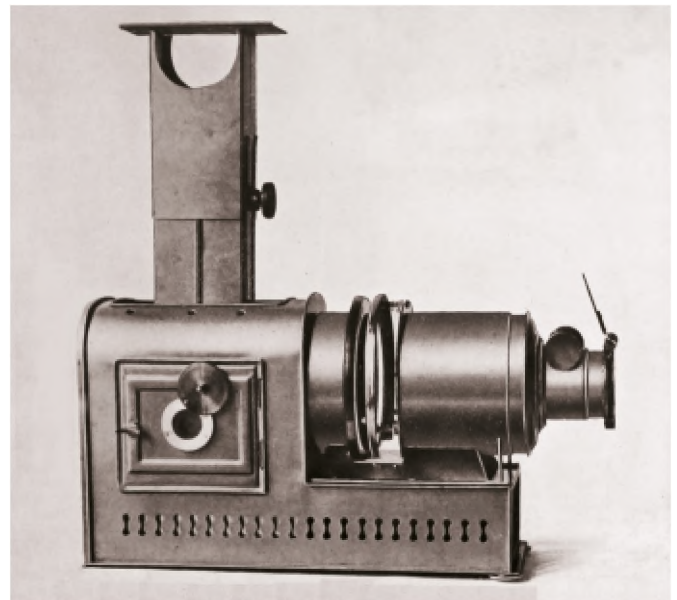
While sorting through papers, I rediscovered an article on page 189 of *The Optical Magic Lantern Journal and Photographic Enlarger*, Volume VI, No. 78 from November, 1895 describing how Russian iron was made. This was a popular material used in the manufacture of magic lanterns so I thought MLS members might be interested in reading a reprint of the article, as follows.

HOW RUSSIAN IRON IS MADE

By a Manufacturer

Russian iron lanterns form a prominent feature in all lantern catalogues, and there are few lanternists who at some period or other have not possessed at least one Russian iron lantern; but I question if more than one per cent. of these users have ever questioned what is Russian iron? As a return for the valuable information that I have received since 1889 from the practical articles in the *Optical Magic Lantern Journal*, I hope the following will be of benefit to its readers. In this age of seeking after knowledge, it, in my opinion, becomes all readers who have any information to impart, to give his fellow readers the benefit of it, and when one gets too prosy the editor will cut it short, perhaps after the fashion of the portion of the article which appeared in the August number, headed 'Art in relation to Lantern Slides'; but to the point.

By the majority of the public, the making of sheet Russian iron is considered as a trade secret, possibly because it is seldom described in works pertaining to the manufacture of iron. It is in reality not a difficult thing to make when one knows how, although I do not for one moment



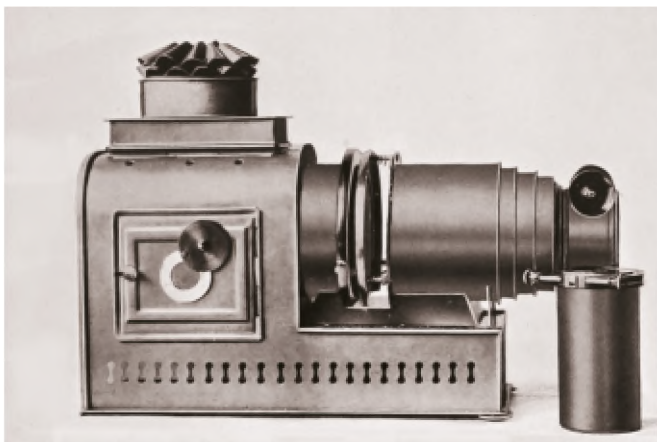
1. Wrench 'No. 15A' Russian Iron Optical Lantern, from an illustration in the 1909 Wrench & Sons hardware catalogue (Martin Gilbert Collection, photograph by Richard Crangle)

suppose that readers will make their own – they will buy it cheaper.

The best ores are obtained from the chain of mountains separating East Russia and Siberia. By a process too long here to describe, malleable iron is made from the ores to billets, these in turn are rolled into bars of a little over two feet long, half a foot wide, and less than half an inch thick. After rendering these bars red hot they are subjected to a rolling process until they form sheets between two and three feet square, they being afterwards rolled together in batches. Again and again these sheets are made red hot and piled together, powdered charcoal being sprinkled between each and rolled until they assume the proportion of about two feet by four feet.

After this, each sheet is carefully washed with water and again sprinkled over with fine charcoal, then bound up in packets of about seventy or eighty sheets and placed for the greater portion of a day in an annealing chamber.

Each packet is now subjected to the action of a heavy steam hammer, under which the packet is moved so that the blows are evenly distributed. The sheets are then separated, and after being washed and heated are again subjected to the hammer. After this they are again heated and piled up alternately between cold sheets and hammered as before. Ere the sheets get cold, they are again washed and racked away to cool when the edges are trimmed so as to bring them to standard size, and in this style they are supplied to the manufacturers of lanterns and the hundreds of other articles which are made from this excellent material.



2. Wrench 'No. 15B' Russian Iron Optical Lantern, from an illustration in the 1909 Wrench & Sons hardware catalogue (Martin Gilbert Collection, photograph by Richard Crangle)