show that such is really the case. Thus, with a single Leclanché cell, having an E.M.F. of 1·35 volt, silver may be separated from copper and bismuth, and mercury from copper, bismuth, and arsenic. The analyses given show a very close agreement with the theoretical numbers.

Our next issue will contain verbatim reports of the proceedings of the International Mining Convention at Montreal.

At a recent meeting of the Manchester Geological Society, Mr. Henry Hall, one of the English inspectors of mines, contributed an interesting paper on the danger attending the recovery of unexploded shots. He said they all knew what a missed shot was, and having had a missed shot, they were bound to deal with it in some way or another, but what they did not know was how to deal with it with comparative safety. He had consequently brought this subject before the association, with the object of getting some information as to the best course to be pursued under such conditions as he had stated. The position seemed to be this, that assuming for a moment a missed shot in a narrow place, the first thing the man would do would be to connect an additional piece of wire to his firing wires and tie it on to the props. He would then proceed to drill another hole, and try to drive out the original shot. When the second shot went off, and he found that, instead of the charge having blown out the missed shot, it had simply blown down his coal and left his shot in the solid coal, the question then arose, what was he to do under the circumstances? Was he to drill another hole, and try to blow out the charge, or was he to try and get the missed shot out of the coal without exploding it? When he found his original shot not blown out he was not likely to go to the trouble of drilling another hole, and consequently he proceeded with his pick to try and recover the missed shot from the solid, an operation which was attended with the utmost possible danger. That this danger was very serious was shown by the number of accidents which had taken place recently, and this large number of accidents made it very clear that something must be done. The danger seemed to arise, first from the low temperature at which the detonators would explode, and to the impatience of a collier in dealing with a missed shot under the conditions he had referred to. The only conclusion he had been enabled to come to was that they should make it a rule that no person except the shot-lighter or fireman should take any part in the recovery of a missed shot, and that even he should not adopt the plan of picking at the unexploded charge. He was not going to say that such an operation was actually unramming, although it approached very closely to it. He thought it was quite clear that they would be doing right to forbid a collier to take any part in the recovering of a missed shot. So far as he could judge there was no rule in the Mines Regulation Act that was better known to the collier than the rule with reference to his not being allowed to unram, whilst there was no rule the collier thought less of breaking, and the rule was broken every day. So far as the general safety of a mine was concerned the sooner any operation connected with the recovery of a missed shot was taken out of the hands of the collier the better.

In a paper before the Illinois Mining Institute on the subject of coal cleaning, Mr. Thomas Stocket, M. E., claimed that two points are essential for good cleaning. (1.) Evenness and regularity in passing the coal from the hopper to the screen, which insures every separate piece touching the screen proper and passing on to the table or belt in such shape that refuse may be readily detected. (2.) Good light, and an abundance of it, which can be secured by the construction of large windows on the sides of and skylights directly over the screens and belts.

At the October meeting of the Engineers' Society of Western Pennsylvania, Mr. Joseph H. Eastwick read a paper on the "World's Supply of Nickel." He mentioned the nickel deposits at various places in the United States which may be valuable, principally in Oregon, Nevada and North Carolina. A trial of the North Carolina ore by Mr. Mixer, of the Edgar Thomson Steel Works, was rather discouraging. It averaged about 2 per cent of nickel, although samples have been obtained running up to 10 per cent. The Nevada ores are abundant in quantity and comparatively rich, but they are arsenides of nickel and difficult to refine. They are also far from railroad facilities. The Oregon ores are of the silicate class and have not been developed in commercial quantities. During the discussion the question of welding nickel and iron was brought up. Mr. Mixer said that he had examined rolled sheets made in Cleveland, O., of nickel and steel. Looking at the edges of the sheet, it could not be determined where the nickel ends and the steel begins, but of course the outside is mostly nickel and the inside steel. The nickel is welded to both sides of a sheet of steel. It makes a non-oxidizable article having the stiffness of ordinary steel, and convenient for various uses. Mr. Mixer pointed out that the small percentage of nickel used in steel is not likely to increase the demand for nickel so much as is generally thought. The Edgar Thomson people had received from Commodore Folger a bar of nickel steel containing 25 per cent of nickel. It was about 2 inches in diameter and very tough, and a steel chisel was ruined trying to cut through it. It took a beautiful polish. It is obvious that for many purposes a steel with a high percentage of nickel may prove very valuable.

Comparative Statement of Coal Deliveries to St. Lawrence Ports, for the Years 1891 and 1892.

Name of Colliery.	Montreal.		Sorel.		Three Rivers.		Quebec.		Totals.	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
	—	—	—	—	—	—	—	—	—	—
Cape Breton:										
General Mining Association	40,819	75,547	26,840	1,589	4,173	9,012	24,011	30,472	95,843	116,620
Reserve	84,082	74,326	8,317	4,358	4,300	.....	11,212	9,419	107,911	88,103
International	103,969	77,758	.....	1,233	.....	.....	4,954	7,620	108,923	86,611
Caledonia	69,317	73,225	18,764	.....	.....	.....	940	.....	89,021	73,225
Gowrie	58,200	68,198	1,806	1,845	.....	.....	2,599	3,293	62,605	73,336
Glace Bay	53,324	43,676	.....	.....	.....	.....	412	1,723	53,736	45,399
Gardiner	.....	.....	.....	.....	.....	.....	.....	5,521	.....	5,521
Pictou:										
Intercolonial	40,420	79,155	.....	4,566	.....	.....	276	.....	40,696	83,721
Vale and Acadia	4,193	.....	.....	.....	.....	.....	.....	.....	4,193	.....
Foreign:										
Scotch	15,193	23,236	.....	3,103	.....	.....	11,078	12,395	26,271	38,734
English	5,282	6,190	.....	.....	.....	.....	7,844	5,177	13,126	11,367
American Bituminous	.....	3,450	.....	.....	.....	.....	.....	.....	...	3,450
	474,799	524,761	55,727	16,694	8,473	9,012	63,326	75,620	602,325	626,087

Recapitulation.

	Tons.		Tons.		Tons.		Tons.
1885	360,000	1887	482,103	1889	467,525	1891	602,325
1886	377,500	1888	517,539	1890	543,656	1892	626,087