

THE WONDERS OF THERMIT.

Melts Both Iron and Steel in Short Order—Burns at Temperature of 5,400 Degrees.

Humanity, which swelters in a heat of 90 degrees, and withers and dies if the mercury runs up 10 or 15 degrees higher, finds it hard to realize a heat of 5,400 degrees. Yet, says the Brooklyn Eagle, that is the heat developed in the combustion of thermit, a heat which welds together pieces of the most ponderous machinery, which makes it possible to mend iron castings weighing tons, which heretofore had to be replaced at great expense of labor and time; which can unite iron rails so perfectly that the jolting can scarcely be seen or felt, and a rail can be made miles long, instead of 50 or a hundred feet at the outside.

This thermit is a compound discovered by Dr. Hans Goldschmidt, of Essen, Germany, who has been lecturing in this country before chemical and engineering associations on this chemical discovery of his that is so full of engineering possibilities; a discovery that, unlike so many scientific discoveries, is not merely interesting to the scientist, but commercially valuable in the industrial world. The thermit is a mixture of finely granulated or powdered aluminum with some metallic oxide, most frequently oxide of iron. This mixture looks not unlike gunpowder, or to a housewife would suggest mixed tea, the light granules being aluminum and the dark ones oxide of iron. In burning this mixture creates a temperature, as Dr. Goldschmidt expressed it in a paper read at the annual meeting of the American Society of Mechanical Engineers, "about equal to that of the electric arc light."

FRANKLY OWNED HIS FAULT:

Incident of Recent Occurrence Illustrating French Army Discipline—A Grenadier's Offense.

Although there has been complaint of late about a growing lack of discipline in the ranks of the French army, the demoralization has not, it is believed, progressed seriously, as the following incidents, coming from a French naval port, will illustrate:

A general holding a high command made his appearance a few days ago at the barracks of an infantry regiment, which, in obedience to his orders, was promptly drawn up in the yard. Then he explained the reason in a brief address. He said that as he was walking in the town attired in mufti on the previous day a man belonging to the corps, who was the worse for liquor, accosted him rudely and asked him to stand him a drink. "Let him step out of the ranks," he concluded.

Immediately a bugler emerged, and, saluting, said: "It is I, mon general." The incident is characteristic and apropos of it one is reminded of such an adventure which befell a certain French marshal. A grenadier, who was exasperated at some injustice that had been done him, pointed his pistol at him and pulled the trigger, but it did not go off. Without moving a muscle, the veteran cried: "Four days in the cells for keeping your arms in a bad state." The bugler's honesty can scarcely have failed to be an extenuation of his offense in the eyes of the general.

A GREAT FAIR!

Fifty-first Annual Event of the

Lake Co. Agricultural Society

AT LIBERTYVILLE, ILL.,

Aug. 30-31; Sept. 1-2, '04

Better Speed Program, Purses, Exhibits and Premiums than ever before.

Balloon Ascension and Parachute Drop

Each afternoon, besides high tight wire work by two lady aeronauts of world-wide reputation. One of the finest

MERRY-GO-ROUNDS

Possible to secure will be on the grounds this year.

SPLENDID AND UNUSUAL SPECIAL EXHIBITS

Speed Program

Wednesday, Aug. 31

2:24 Trot.....\$300 00
3:00 Trot..... 300 00
2:20 Pace..... 300 00

Thursday, Sept. 1.

2:28 Trot\$300 00
Free-for-All Pace 400 00
Mixed Trot and Pace, Lake county only
2:40 Trotters and 2:50 Pacers.... 200 00

Friday, Sept. 2.

2:35 Pace\$300 00
Free-for-All Trot..... 400 00
2:40 Trot 300 00

\$2,800 in Purses

\$100 for Baseball

Money Prizes for Annual Baby Show

Remember the Date

Aug. 30-31; Sept. 1-2

The Great Lake County Fair