Some Old Names Around Steel and Iron

Advanced

General

This is just a collection of some names one encounters around iron and steel. Many of these names are a bit strange and that's why I try to look into the etymology, the meaning and history of these names, as far as possible.
I'll cover English and German names because there is often a relation. I'll keep alphabetical order.

Blister Steel

Blister steel is what you get by the cementation process. The steel is full of blisters "because of the gases involved". That is a bit very general for an explanation. It seems that nobody has looked into the issue. My guess is that some "hydrogen blistering" mechanism was at work.

Anyway, modern steel aficionados are making blister steel again, and here is what it looks like:

Modern blister steel

Source: Scott A. Roush once more. Thanks for sharing!

Bloom

A bloom is what you get in a bloomery: A spongy piece of iron / steel with pieces of charcoal and other dirt plus plenty of slag. Here are pictures.

The etymology is easy: bloom = rough mass of wrought iron," from Old English bloma "lump of metal; mass". Unknown origin and not related to blooming flowers ("Blume" in German) .
The German term "Luppe" is just as mysterious (see below)

Luppe (German)

Same as bloom; nowadays also called "Schwammeisen" = sponge iron. In French it is a "loupe" and now we have an interesting etymology. First it should be noted that in old German other names are used, too, for example: "Deul" (in modern German: Teil = piece)

Now we have a wealth of possible meanings. If we first assume that the word did *not* come from the French we have

- From "lopen" = modern "laufen", meaning trickling down.
- From Luppe = "läufige Hündin", a bitch in heat; also a prostitute.
- From luppen, lüppen = "Milch gerinnen machen"; clotting milk.

- If the word *did* come from the French, we have

  - From Loupe = "Lupe" = magnifying lens, which might have its roots in:
  - loupe = wolf = circular swelling or tumor under the skin known as "wolf's tumor"
  - .....

In other words: forget it!

Ofensau

Whatever remains deep down in a blast furnace that can't get out during tapping. In German the Ofensau (literally furnace pig) is also known as "Härtlinge" (= hard ones) or Wölfe (= wolves) and that relates to a second meaning: Ofensau = Luppe (= Bloom).

- The proper English word for Ofensau is "salamander" or "deadman's foot". It denotes all liquid and solidified materials in the hearth of a blast furnace, or just about any smelter, stuck below the tap hole.

Osmund Iron

I have dealt with Osmund iron already in the backbone. Here are a few more pertinent facts:

- Osmund iron is also known as osmond and osborn iron; in German perhaps also as *osemund*. Once more, the etymology seems to be unclear. One enterprising German scholar suggested in 1725 that the name goes back to "Asmuntz", the son of the giant Gulla in some Northern mythology. Not very helpful.
- However, there are those who are convinced that the "Osemund" iron / steel used in the Sauerland / Germany, in particular for wire making, has nothing to do with the Svedish "osmund".
- Osmund iron was made in Sweden or Scandinavia form early *pig iron* produced in blast furnaces. It is mentioned in custom accounts in England as early as 1325. It was shipped in irregular pieces but secondary industries, for example around Lübeck in North Germany, forged it into bar iron and traded it on. It was usually described as soft wrought iron but that cannot be the complete truth as we know now, after osmund steel has been found.
  Gustav II Adolf of Sweden prohibited his subjects from exporting unfinished iron in 1620, and all trade in osmund ceased.

Pig Iron

The stuff coming out of a blast furnace. Pig iron, in other words, is the cast iron made in blast furnaces.

- There are two explanations for the name:

  1. The molds for the pig iron are neatly lined up and fed from a central source, just like piglets.
  2. Cast iron was involuntarily made on occasion in the "Stücköfen" in the 13th / 14th century. It was given slanderous names like Graglach, "Dreckfluss" (= dirt run) or "Saueisen" (= pig iron). A "Sauerei", (= piggery, a mess) is still a much used word in German. The English pig iron then is just a translation.

Pig iron analogy.
On the right workers in Pittsburg are getting at the pig iron
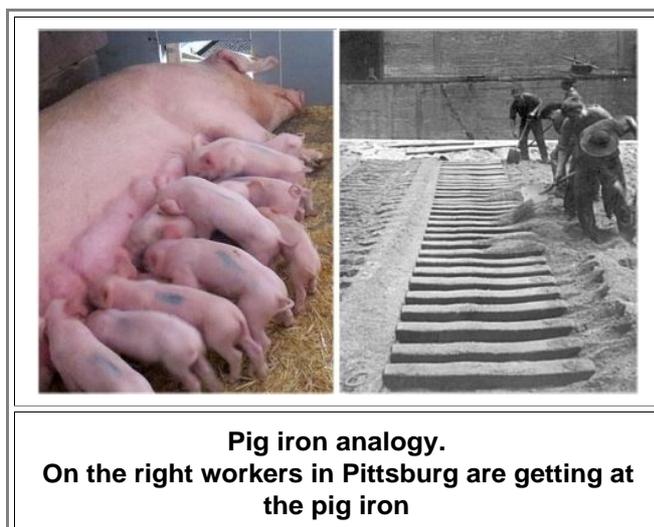
Sarschach Steel

"Sarschachstahl", literally "shear-things steel" or steel for shears and other cutting tools like chisels, knifes and swords, was the top-grade steel made in the Alpine valleys we know from "Ferrum Noricum" by the local specialists from around 1500 to almost ever since. The raw iron / steel came from the big blooms of the Stückofen, or the cast iron made on purpose in the "Flossofen" the "flowing furnace", in somewhat later times.

The smith then and there could sort various steel qualities (fracture properties and the appearance of fracture surfaces was essential in this) and reforge the stuff into steel bars of various carbon content and quality. Sarschach Steel embodied the top qualify. It was used for producing all kinds of top quality iron /steel things that were traded far and wide, or as raw materials for the specialists who made armor, for example in places like Augsburg, Regensburg and Nürnberg in South Germany. Besides the "Sarschachstahl" there was also

- Grades below Sarschach steel in descending order: Zweckschmiedestahl ("function smithing steel"), Feinstahl ("fine steel"), Gemeinstahl ("common steel")und Wurzelbrocken ("root chunks").
- As far as *steel* in general was concerned we have Gärbstahl ("faggoted steel"), Münzstahl ("couin steel"), Zainstahl, Hackenstahl, Frumbstahl, Mock, Kernstahl and Pfriemstahl, whatever that all means. And I'm sure that there was a lot more.
- As far as *wrought iron* was concerned, we find: Stangeneisen, Zaineisen, Ziehereisen, Klobeisen, Zwizach, ….

No use trying to translate all this. We don't know exactly what many of these words means in German either.

Shear Steel

To say it with Vagn Buchwald (Book II, p. 563): It's *Blister steel* (see above) that has been improved by faggotin .

The name arrives from the use in the cutlery trade