

The Adventure of the Engineer's Thumb



A young hydraulic engineer, Jeremiah Hayling, waits in his office for clients to call, but there isn't much business for him.

In two years, his earnings from three consultations and one small job amount to a meager £27 10s.

Then one afternoon he has a visitor, an exceedingly thin man with a trace of a German accent.

The visitor makes Hayling a proposition: there is a hydraulic press at the visitor's residence which is in need of repair.

The visitor offers to pay a fee of 50 guineas for the engineer's assistance on location.

Fifty guineas! Almost double the amount the engineer has earned in the preceding two years!

Naturally, Hayling is deeply interested.

But there are conditions: Hayling's visit must be at night because the press he is to examine is used in connection with the processing of a rare and valuable mineral found on the visitor's farm property.

He must be sworn to secrecy regarding all aspects of his visit.

The visitor asks some sinister questions: Is his understanding that Hayling is an orphan and a bachelor correct?

Does Hayling live alone in London?

But despite his misgivings, the engineer agrees to visit the farm that very night.

Little did he know that the very next morning would find him, semi-hysterical and fainting from loss of blood, in Dr. Watson's office.

His thumb had been hacked off at the roots in the course of his harrowing night-time visit.

Fuller's-earth is a highly absorbent claylike substance used to remove grease from woolen cloth while cleaning, or "fulling," such cloth.

It is also used to purify certain grades of oil.

It is not particularly precious — not nearly as dear as gold — and its use in counterfeiting is dubious at best.

Can we state, then, that the story about fuller's-earth was a chimera, was used to satisfy Hatherley's curiosity?

If so, how did Colonel Stark know that Hatherley would be ignorant of the true uses and worth of fuller's-earth?

Speaking of counterfeiting, I think we may safely assume that Stark & Co. were making metal coinage.

Surely, they would not have needed a hydraulic press to print paper money.

But it probably was not gold coinage, because they would not have needed a press nearly so huge as the one in the story to strike gold coins; even a gold alloy would have been soft enough to strike coins without the need for a great amount of pressure.

Well, then, silver?

The largest denomination of silver coin in Victorian England was the sovereign.

Would it be worthwhile to counterfeit a coin of such comparative low (10s.) value?

Watson mentions that when Hatherley appeared in his office, he was wearing “a soft cloth hat.” Yet, in telling Holmes and Watson about his experiences, he provides the following dialogue:

[Colonel Stark] “Mr. Ferguson and I will take you up to see the machine.”

[Hatherley] “I had better put my hat on, I suppose.”

[Stark] “Oh no, it is in the house.”

And off go Hatherley, Stark, and “Mr. Ferguson” to see the hydraulic press.

Hatherley never returns to the room where he left his hat, having jumped from a second-floor window to make his getaway.

Yet he is wearing his hat, or at least a hat, when he enters Watson’s office after a night unconscious in the bushes and an early morning train ride to London.

Where did he get the hat?

In previous discussions, there has been much comment about the placement of Hatherley’s hands when he was hanging from the window.

A study of the text reveals that he “was hanging with [his] fingers in the window slot and [his] hands across the sill.”

His fingers, therefore, were not hooked over the inside edge of the window sill but rather in the shallow slot in which the window rests when closed.

His thumbs, then, must have been very close to or beyond the outer edge of the sill.

Yet only was “Fritz” able to sever one of his thumbs, but the amputated member then remained on the sill, where it was found by firemen the next day.

Can the Hounds explain (a) how the thumb came to land on the sill; and (b) how the firemen managed to find it, still on the sill, in a house in which “the roof had fallen in, and the whole place reduced...to absolute ruin?”

And lastly, we come to the hydraulic press.

Hatherley says it was “huge.”

It must have weighed a great deal, and yet it was installed on the second floor of the house.

How did the counterfeiters manage to get the press into the house without the neighbors noticing, and why did they put it on the second floor?