On a medically, economically and vegetable-pathologically interesting fungus *chu ling*¹

(*Polyporus Chu ling* nov. sp.)

(Preliminary note.)

by

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The *chu ling* is a kind of chinese drugs of fungus origin and is known from very ancient times.

It is already mentioned in the earliest chinese work on Materia Medica, the *Shen nung Peng ts'ao king*²; which is considered to have been compiled in the Han period³ (B. C. 202–A. D. 221.). The use of this drug was introduced from china to our country in an early period. The ancient japanese name of this drug as seen in *Yasuyori's Wamyo honzo*,⁴ (dated about A. D. 980) is the *Kashinokino fusube*, meaning excrescences on oak, which shows that as if the ancients have had some notion about the parasitisms of this fungus.

Since these times until thirty years ago, this drug has been commonly used and highly esteemed of its astringent and diuretic properties.

It is produced from the mountainous districts of the middle and north japan and is also imported from china. The chinese *chu ling* is of somewhat different quality and is called *tō chorei* in contradistinction to the japanese *chu ling*, which is known among drugists *wa no chorei*.

But at present, the use of the *chu ling* is entirely forgotten in this country and so we find no single lines about this fungus on the recent japanese works of botany or pharmacology.

The fact that the *chu ling* is of fungus origin and indeed of a kind of sclerotium is already known for long times, but the questions to what species it belongs, and on what host plants it grows has not yet been investigated.

1. 猪苓

3. 汉代

2. 神農本草經

4. 康賴倭名本草

For some years, I have devoted myself to the study of this interesting fungus and have travelled to the *chu ling* producing districts of the provinces of Yamagata and Fukushima in north japan, in order to obtain its good specimens.

This summer, I was fortunate enough to find out at Kobushi mura in Minami aizu the fruiting body of this fungus springing out from its sclerotium and at the same time was able to study its probable host plants.

So I intend here to give a brief preliminary notes about the results already attained in the following lines.

1. The japanese *chu ling* is a kind of sclerotium belonging to a new species of basidiomycetous fungi, which I call *polyporus chu ling*.
2. The sclerotium is found underground, just beneath a thick layer of fallen leaves, forming horizontal stratum of branched tuberous body, attached to the roots of host plants.
3. The fruiting body of the *chu ling* appears thrice a year, in May, July and October, and is known under the local name of *chorei maitaki*, *natsu maitake*, or *chorei naba*, which resembles very much to *polyporus umbellata* in form, having ramified stipes. It is collected by poor peoples as an article of food. (Pl. IV. fig. 2.)
4. The host plants on the roots of which the sclerotium of this fungus are produced seem to be *fagus Sieboldi* Endl., *Quercus grosseserrata* Bl., *Quercus crispula* Bl., *Acer palmatum* Thunb., which I intend to prove later on by the comparative study of the structure of the island of Japan.

In the chinese literature, the *chu ling* is said to be produced on the roots of *liquidambar formosana* but it is not the case with the japanese *chu ling*, for this host tree do not grow wild in the main island of Japan.

5. The sclerotium of *polyporus chu ling* is of perenial growth, having an irregular branched form and connected together by very narrow constrictions. It has a brownish black skin and white flesh, and often attains an enormous size of two feet or more in diameter. (Pl. IV. fig. 2.)
6. As to the morphology of the fruiting body and the minute structures of the sclerotium, I will give in full detail in a later paper.

(The Pl. IV. will appear in the next number.)

M. Shirai Phot.

Polyporus Chuling nov. Sp.

1. A fruiting body, nat. siz.; 2. A portion of sclerotium, $\frac{1}{2}$ nat. siz.