The Professor & the Pea:
William Bateson & the case for Mendelian genetics as applied science, 1902-1922

Greg Radick

6 July 2010

Owning and Disowning Invention conference

Plan of the paper

Plan of the paper

(1) Programmatic points about IP as an analytic category for historians of science

Plan of the paper

(1) Programmatic points about IP as an analytic category for historians of science

(2) Bateson as expert witness on heredity in cultivated peas, 1921

Plan of the paper

(1) Programmatic points about IP as an analytic category for historians of science

(2) Bateson as expert witness on heredity in cultivated peas, 1921

(3) Qualification of previous conclusion on the Mendelians' solution to "rogues"

An expanded concept of IP

An expanded concept of IP

IP in a narrow sense: patents, trademarks etc. (means for preventing others from profiting from one's inventiveness)

An expanded concept of IP

IP in a narrow sense: patents, trademarks etc. (means for preventing others from profiting from one's inventiveness)

IP in a broad sense: everything else to do with the ownership of ideas & public claims to that ownership

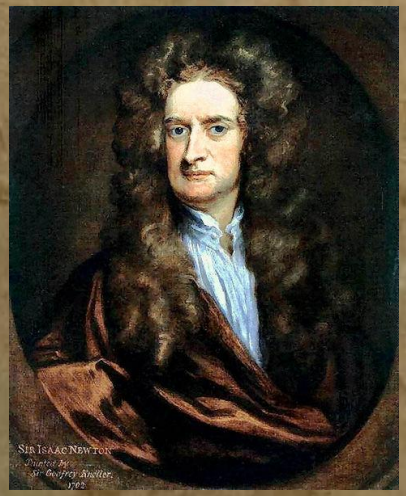
IP broad as a signature feature of science since the C17

IP broad as a signature feature of science since the C17

productivity claims (truth/usefulness circle)

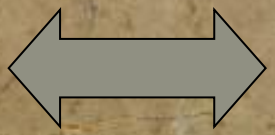
IP broad as a signature feature of science since the C17

productivity claims (truth/usefulness circle)



priority claims

productivity claims

patent claims  priority claims

(think: triangle with 3 sets of interactive vertices)

A few further thoughts

Anachronism or actors' category?

A few further thoughts

Anachronism or actors' category?

Embracing the metaphor (if that's what it is!)

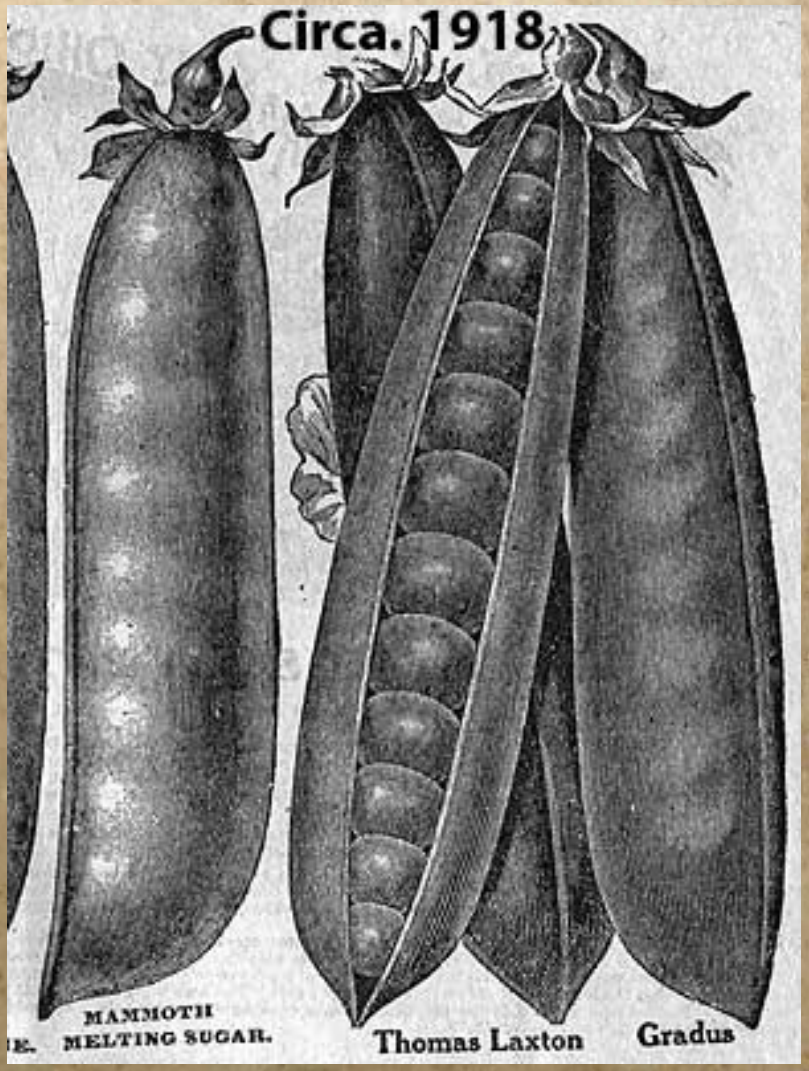
A few further thoughts

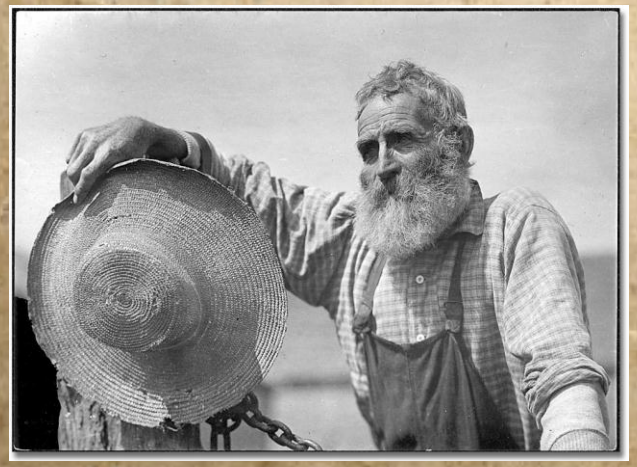
Anachronism or actors' category?

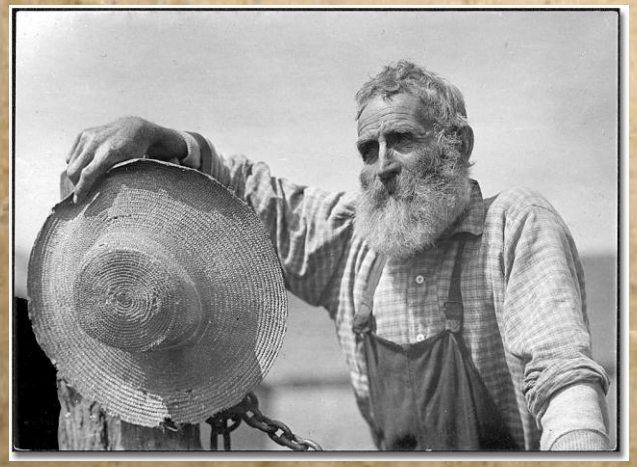
Embracing the metaphor (if that's what it is!)

The point: to direct historians' attention to otherwise unnoticed features of the past

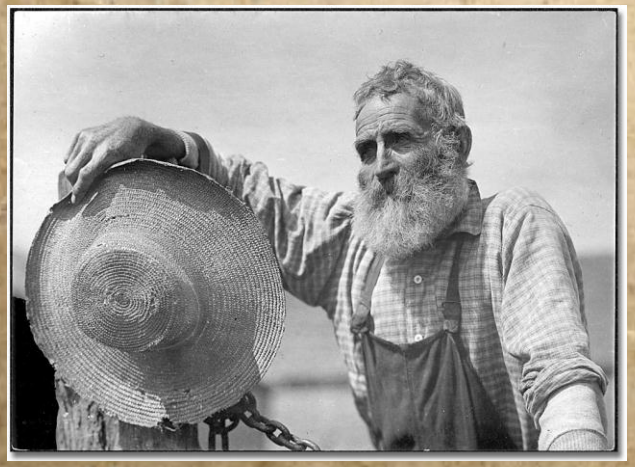
William Bateson, 1922.





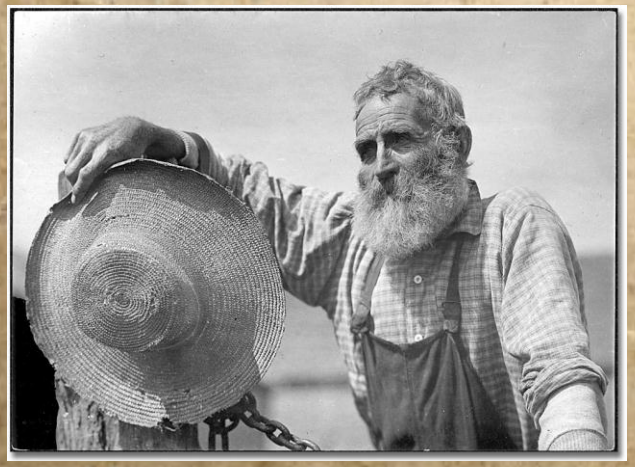


Hamm



Hamm

White

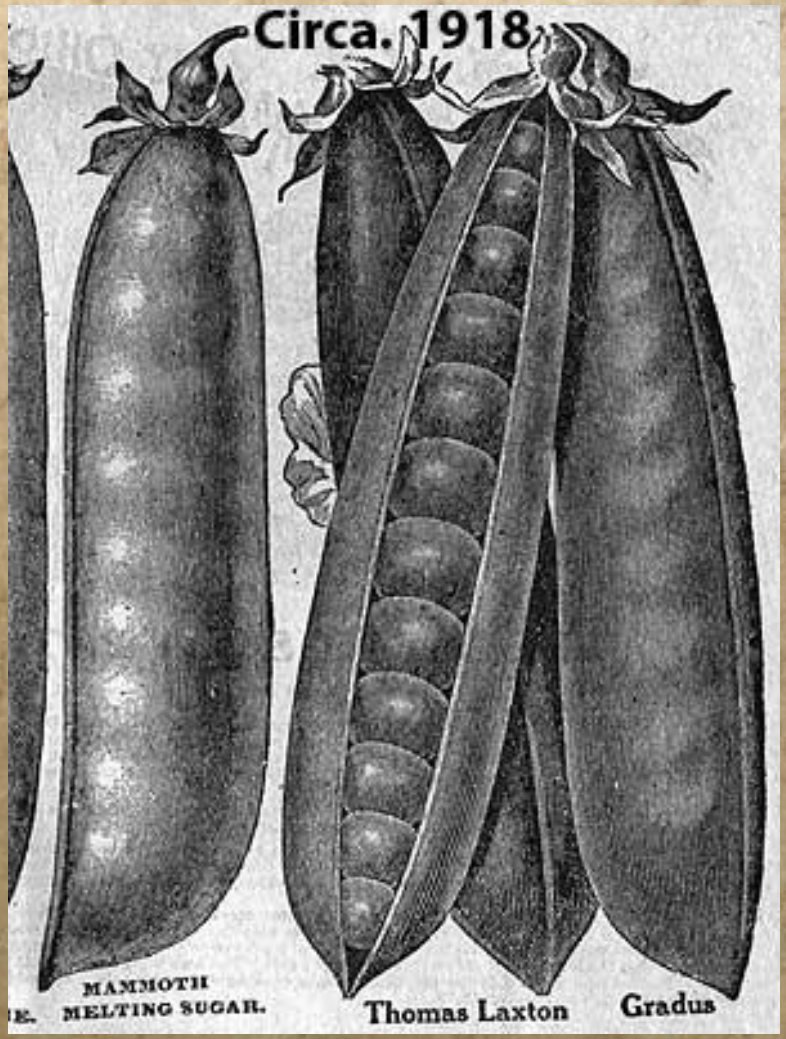


Corry

Hamm

White

"… the main question was whether they were or were not Gradus peas."



Back to IP narrow (plants)

The nightmare of synonyms:

Back to IP narrow (plants)

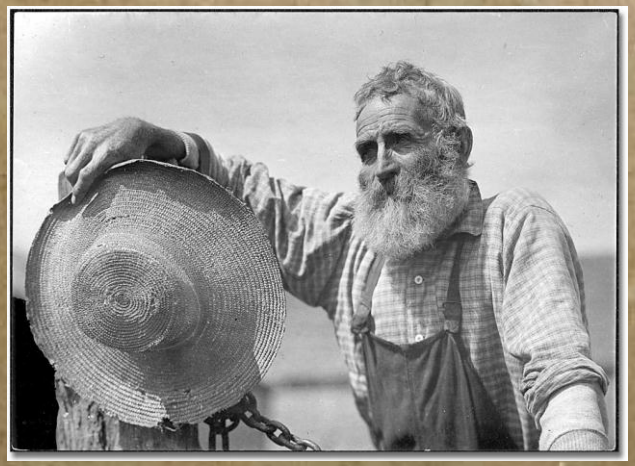
The nightmare of synonyms:

variety loses reputation as worth buying

Back to IP narrow (plants)

The nightmare of synonyms:

- variety loses reputation as worth buying
- breeder loses reputation as worth buying from



What Corry said

"… Mr. Corry tried to prove that the Peas in some mysterious way developed a power to produce something quite different, either on the voyage [from New Zealand] or at any rate in one year [i.e. in the year between his producing them & their arrival in England."

What the judge thought

"... I should have thought that the seed sent forward from New Zealand had an undue proportion of 'rogues' in the amount sown. Can these peas that were sold to Mr. Hamm be said to be Gradus peas? [The barrister] said every pea is a Gradus pea if it originally came from Gradus stock, and →

What the judge thought

"it matters not that it has reverted, it is still a Gradus pea. I do not agree with that commercially, and I think that it is a perfectly unsound proposition."

William Bateson, 1922.

"[Thanks] for the very great assistance which you gave us in our Gradus Pea case yesterday and the day before. I think the two most important witnesses there, who helped us most, were yourself and Mr. Corry." White to Bateson, July 1921

Bateson and rogues: A qualification

Bateson and rogues: A qualification

"The proportions in which … 'rogues' occur under commercial conditions are of course various, depending on the care with the which the parent crop has been rogued, on the nature of the variety etc." [If fairly free from rogues, expect 1 per cent] Bateson & Pellew, 1915, *Journal of Genetics*

The judge echoes Bateson

"When a person buys Gradus peas, he does not, of course, expect a perfect delivery; 'rogues' there must be, and very likely among the seed delivered other seeds may have got mixed in*, but what he does expect, and what he has a right to expect, is that there shall be an overwhelming proportion of peas→

The judge echoes Bateson

"that when sown will produce Gradus peas – a pea that is known in the trade as a Gradus pea."

Productivity claims

Patent claims

From Bateson's *Gardener's Chronicle* obituary

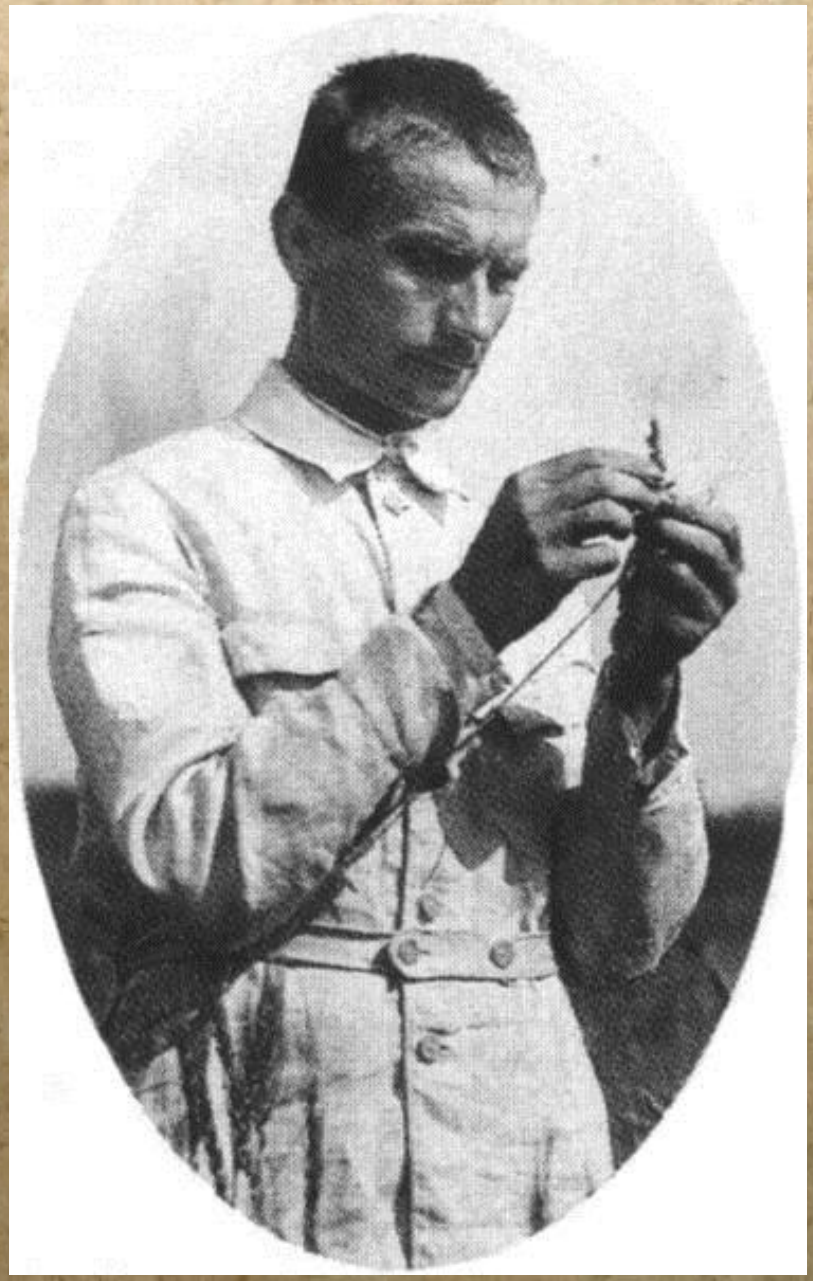
"It was this almost boyish zest that made it possible for him to turn from animals and plants as soon as Mendel's work was republished, and in very short time he got a good grasp of many branches of horticulture, and even appeared as a witness in a famous lawsuit where the identity of Gradus Pea was in question."

From Bateson's *Gardener's Chronicle* obituary

"It was this almost boyish zest that made it possible for him to turn from animals and plants as soon as Mendel's work was republished, and in very short time he got a good grasp of many branches of horticulture, and even appeared as a witness in a famous lawsuit where the identity of Gradus Pea was in question."

From Bateson's *Gardener's Chronicle* obituary

"It was this almost boyish zest that made it possible for him to turn from animals and plants as soon as Mendel's work was republished, and in very short time he got a good grasp of many branches of horticulture, and even appeared as a witness in a famous lawsuit where the identity of Gradus Pea was in question."

From Bateson's *Gardener's Chronicle* obituary

"It was this almost boyish zest that made it possible for him to turn from animals and plants as soon as Mendel's work was republished, and in very short time he got a good grasp of many branches of horticulture, and even appeared as a witness in a famous lawsuit where the identity of Gradus Pea was in question."