before being used in
cells will be accepted
thout any hesitation and
fed from the start, and
produce better queens,
ng equal. On the other
hat are transferred to
ups ⅓ inch in diameter
l with suspicion by the
ot be accepted without a
, during which period
are robbed of the supply
d by the operator, and
eign receives a shock to
ganism from which it is
r she ever fully recovers.
arming period our breed-
provided with artificial
ich the queen is allowed
s exactly as in natural
cell cups are under our
n, and since we have
n a queen to deposit an
p that had not been sub-
haping process as above
ık I may be excused for
such an occurrence is
except in cases of ab-

s to the subject of par-
d the purity of drones
ed queen. I am fully
thenogenesis is a stern
ry successful bee-breeder
later, recognize at its
ile the underlying prin-
nogenesis are too appar-
ly ignored, it is a de-
at certain phases of its
e have been over-esti-
detriment of the bee-
ld aspire to the develop-
of bees of known purity.
he idea prevails to an
among bee-keepers that
e male issue of a queen
ted by her mating with
er blood. My conclusions
matter have been forced

upon me by facts that have come under my personal observation as well as by the testimony of others in whom I have great confidence, and whom I consider qualified to judge of such matters.

Mr. G. M. Doolittle, an authority upon subjects pertaining to bee-breeding, comes out squarely upon this subject; indeed I can not better express my views upon the subject than by quoting a few paragraphs from his book "Scientific Queen Rearing," a work that has completely revolutionized queen rearing methods. Among other things he says, "Now I am not prepared to say how, or wherein, the drones are changed by the mating of the queen; but this I do know, that drones **are** contaminated to a certain extent by the mating of a queen of one blood, with a drone of another blood. Anyone can prove this, for in four generations, by mating the queen each time to these pure (?) drones, a bee can be produced that no one can tell from a hybrid. That this contamination does not show in the first cross, is the reason, I believe, that the theory has been accepted by nearly all, as the truth."

"Worker bees and drones do not show a little variation of purity, as much as does the queen, hence if we would know of the stock which we have we must rear queens from them. Failing to do this we often decide that we have pure drones for breeding purposes, because these same drones look all right." After going into detail at considerable length to explain how the impurity of drones from a mismated queen can be proven, the author ends his remarks with the following sentences. "Let no one be longer deceived about **pure drones** from a mismated queen; for if such drones are allowed to fly in your yard, you cannot expect any satisfactory degree of purity from queens reared therein. I have been forced to this conclusion by many carefully conducted experiments as already described."

These are the words of G. M. Doolittle, of Borodino, N.Y., than whom, there is no better authority upon subjects pertaining to queen rearing, and I believe Mr. Alley, entertained like views upon this same subject. Mr. Mel. Pritchard, is well known as superintendent of the queen-rearing department of the A. I. Root Co, and is consisered one of the best informed queen-breeders in the United States. When at Medina, not long since, I asked for an expression of his views upon this ubject and he unhesitatingly replied to the effect that he would not allow drones from a mismated queen to fly in his yard. I believe that a misconception of the power and scope of the law of parthenogenesis is responsible to a great extent for the fact that so little progress has been made along the line of establishing fixed characteristics in bees. It should be apparent to the thinking bee-breeder that a judicious system of line breeding will have a tendency to remedy this difficulty. It is a deplorable fact that the bee-keeping literature of this country is sadly at fault for accepting the statement of German scientists concerning a matter that can be so easily discredited.

In conclusion, let no man delude himself with the idea that he can establish uniform traits in bees, without a recognition of the law of parthenogenesis, at its true power and scope; for it is a scientific impossibility to establish a pure strain of bees by breeding to drones from a mismated queen.

Birmingham, Ohio.

AMERICANS AND CANADIANS

Why Lose Fifty Per Cent. Profit?

Indexed

By Samuel Simmins.

What is wrong with American and Canadian bee-keeping? With a look of astonishment, the reader will at the first glance reply "Nothing! Nothing! Why