

SCIENCE

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FRIDAY, APRIL 27, 1900.

LIQUID HYDROGEN.*

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FROM the year 1878, when the experi-
ments of Cailletet and Pictet were at-
tracting the attention of the scientific
world, it became a common habit in text-
books to speak of all the permanent
gases, without any qualification, as having
been liquefied, whereas these experiment-
alists, by the production of an instantaneous
mist in a glass tube of small bore, or a
transitory liquid jet in a gas expanding
under high compression into air, had only
adduced evidence that sooner or later the
static liquid form of all the known gases
would be attained. Neither Pictet nor Cail-
letet in their experiments ever succeeded
in collecting any of the permanent gases in
that liquid form for scientific examination.
Yet we meet continually in scientific litera-
ture with expressions which lead one to be-
lieve that they did. For instance, the fol-
lowing extract from the 'Proceedings' of
the Royal Society, 1878, illustrates this
point very well: "This award (Davy
Medal) is made to these distinguished men
(Cailletet and Pictet) for having independ-
ently and contemporaneously liquefied the
whole of the gases hitherto called perma-
nent." Many other quotations of the same
kind may be made. As a matter of fact six
years elapsed, during which active investi-
gation in this department was being prose-

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor, J. McKeen Cattell, Garrison-on-Hudson, N. Y.

* Lecture before the Royal Institution of Great Britain.