

The **footnotehyper** package

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Abstract

The footnote package by MARK WOODING (1997/01/28 1.13) allows to gather footnotes (`\begin{savenotes}`) and later insert them (after `\end{savenotes}`) at the bottom of the page, even if the intervening material consists of tabulars, minipages or framed contents for example. One can also use the `\savenotes/\spewnotes` syntax.

Also, `footnote.sty` provides a footnote environment which allows to insert verbatim material.

Earlier releases of the present **footnotehyper** package added patches for `hyperref` compatibility and some bugfixes, addressing in particular the incompatibility with `color/xcolor`, and with `babel-frenchb`, and also fixing the footnote environment with optional argument [NUM]. Since v0.99 all macros are defined internally and the footnote package is not loaded at all.

The same user interface is kept. Since v1.0 it is possible to use **footnotehyper** also in absence of `hyperref` or when the latter is loaded with its `hyperfootnotes=false` option. The order of loading of **footnotehyper** and `hyperref` is inconsequential.

1 License

```
% Package: footnotehyper
% Version: 1.1 (2018/01/23)
% License: LPPL 1.3c
% Copyright (C) 2016-2018 Jean-Francois Burnol <jfbu at free dot fr>.
%
% This Work may be distributed and/or modified under the conditions
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% this license is in:
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%
% Version 1.3 or later is part of all distributions of
% LaTeX version 2005/12/01 or later.
%
% The Author of this Work is: Jean-Francois Burnol `<jfbu at free dot fr>`
%
% This Work consists of the main source file footnotehyper.dtx and the
% derived files footnotehyper.sty, footnotehyper.ins, footnotehyper.tex,
% footnotehyper.pdf, footnotehyper.dvi.
```

2 Usage

Since v0.99, **footnotehyper** does not load package `footnote.sty`¹ anymore, and is even incompatible with it as it uses the same user interface.

Since v1.0, **footnotehyper** is usable also in absence of `hyperref` or when the latter was passed `hyperfootnotes=false` option.

Version v1.1 fixes a bug which arose when `savenotes` environment was used *inside* a `minipage`: footnotes were disappearing!² See related remarks at end of [section 3](#).

The package thus provides:

- a `savenotes` environment which re-routes footnotes and delivers them at the end (there is also the `\savenotes/\spewnotes` syntax; it does create a group like the environment),
- `footnote` and `footnotetext` environments to allow footnotes with verbatim material.

But the constructability of the `footnote/footnotetext` environments depends on how `\@makefn` has been customized by the class or other packages; a warning is issued if the situation appears to be desperate.³

It should be recalled that in case of `\footnotemark[N]` and `\footnotetext[N]{...}` mark-up `hyperref` creates no hyperlink. This is not changed by **footnotehyper** and applies also to the `\begin{footnotetext}[N]` case. Without optional argument the link is created, and the link is created also for `\footnote[N]` or `\begin{footnote}[N]`.

This package does not handle especially floating environments, except that one can always surround them in the source in a `savenotes` environment and one knows that the footnotes will be delivered at the `\end{savenotes}...` which may well be one page earlier than the actual location of the floating material in the produced document !

Environments typesetting multiple times their contents are the most hostile to footnotes. Currently, **footnotehyper** only handles especially the `amsmath` environments (as in `footnote.sty`.)

Finally there is a `\makesavenoteenv` command which takes as argument an environment name and patches it to do the `\savenotes/\spewnotes` automatically.⁴ It is safer to avoid it, as one never knows what happens with such patches: for example the `[H]` specifier provided by the `float` package overwrites the `\end{table}` definition during the execution of `\begin{table}...` !

Inside⁵ a
tabular⁶

An example:

```
\begin{savenotes}
\begin{framed}
Please refer to the documentation of the |footnote| package.%
```

¹<http://ctan.org/pkg/footnote>

²Thanks to François Pantigny for reporting the bug.

³original `footnote.sty` could end up in a low level T_EX error.

⁴For the record the syntax is either `\makesavenoteenv{foo}` which patches environment `foo` or `\makesavenoteenv[bar]{foo}` which defines environment `bar` as this patched version of `foo`.

2 Usage

```
\footnote{\url{http://ctan.org/pkg/footnote}}
```

Particularly you may check its `|savenotes|` environment.%

```
\footnote{It doesn't bring any  
feature to especially handle the issues related to footnotes in floating  
environments, though.}
```

```
\end{framed}
```

```
\end{savenotes}
```

and the present frame has `\footnote`'s from inside a `tabular` and is inside a `savenotes` environment.⁷ Let's test an `amsmath` environment with `\intertext`. As

$$E = mc^2, \tag{1}$$

was too easy⁸, let's try:

$$a^n + b^n = c^n. \tag{2}$$

And a footnote with some verbatim material⁹.

The last one was coded as:

⁵Notice that as frame extended to the next page, the end of the `savenotes` environment delivered its footnotes only here.

⁶Alternatively a `\savenotes/\spewnotes` pair could have been used.

⁷Here is an issue which has nothing (as I finally figured out) to do with `footnote`, and only indirectly with \LaTeX : if you embed a *full-width* `minipage` (with initial `\noindent`) in any environment not doing `\ignorespacesafterend`, be careful to add a `%` either immediately after the `\end{minipage}` (or a `\relax` or a `\par`) or after the surrounding environment `\end{foo}` or use `\end{minipage}\end{foo}` else the output may have an extra blank line if the source has a blank line after the `foo` environment. Here is a typical example, with a `tabular` rather:

```
\newenvironment{foo}{}{}  
  
\noindent\begin{tabular}{p{\dimexpr\linewidth-2\tabcolsep\relax}}  
A\dotfill B  
\end{tabular}  
  
C  
  
\begin{foo}  
\noindent\begin{tabular}{p{\dimexpr\linewidth-2\tabcolsep\relax}}  
A\dotfill B  
\end{tabular}  
\end{foo}  
  
C
```

If you try it out you will see an extra blank line in PDF output above the second C. Starting with v0.99 the `\end{savenotes}` emits an `\ignorespacesafterend` which avoids this generic \TeX/\LaTeX problem. For good measure there is now an `\ignorespaces` in `\begin{savenotes}`.

⁸There is also $E = hv$.

⁹`&${}^{\%}\{[]\}`

3 Notes

And a footnote with some verbatim material%

```
\begin{footnote}
  \verb|&${}^%[\]}$|
\end{footnote}.
```

Now some use of `\footnotemark`¹⁰ followed by a `footnotetext` environment. And use of `\footnotemark[99]`⁹⁹ in association with a `footnotetext` environment using the same optional argument [99]. No hyperfootnote link was inserted. And a final footnote, done with `\begin{footnote}[57]`⁵⁷. There is no problem with the hyperlink, then.

3 Notes

A few items worth of mention:

- the `footnote` package patches the L^AT_EX kernel `\parbox`. `footnotehyper` doesn't (but the code can be found commented-out at the end of the present file).
- the `footnote` package defines a `minipage*` environment which is `minipage` patched by `\makesavenoteenv`, `footnotehyper` doesn't.
- the `footnote` environment from `footnote.sty` does a `\leavevmode\unskip` which `footnotehyper` doesn't: hence if one locates `\begin{footnote}` at start of a line in the L^AT_EX source, one will typically need a `%` at end of text on previous line to avoid the end-of-line space.
- the `hyperref` package inserts no hyperlink in case of `\footnotemark[N]/\footnotetext[N]`. This is not modified by `footnotehyper`.
- side-note: there is an interference between `hyperref` and `frenchb` regarding the footnote marker when using the syntax `\footnotemark[NUM]`. For the record here is a patch (last tested briefly with `hyperref 2016/06/24 v6.83q` and `frenchb 2017/01/30 v3.2g`):

```
\AtBeginDocument{%
  \let\xfootnotemarkORIFB \xfootnotemark
  \def\xfootnotemarkFB {\leavevmode\unskip\unkern\,\xfootnotemarkORIFB }%
  \ifHy@hyperfootnotes\iffBAutoSpaceFootnotes
    \let\xfootnotemark\xfootnotemarkFB
  \fi\fi
}%
```

- some environments typeset multiple times their contents, which causes issues; `footnotehyper` takes provisions only to handle the `amsmath` measuring step.

¹⁰This one uses the normal footnote counter and the hyperlink works.

⁹⁹`hyperref` creates no hyperlink in this case, or in the `\footnotemark[N]/\footnotetext[N]{<foo>}` case. It does when the [N] is absent or when it is used with a `\footnote` command (or a `footnote` environment.)

By the way, `footnotehyper v0.9f`'s `\footnotetext[N]` and `\begin{footnotetext}[N]` each had a bug and they were unusable *inside* the `savenotes` environment. There was no issue *outside*.

⁵⁷

`footnotehyper` works since v1.0 also in absence of `hyperref` or when the latter was passed `hyperfootnotes=false` option.

3 Notes

- L^AT_EX2e has some features when using footnotes in `minipage`'s which are themselves in a `minipage` which may also have footnotes externally to the internal `minipages`... try it out with some `\fboxes` around the sub-`minipages`, to see.
`footnotehyper` behaves like original package `footnote` in such contexts. Only reasonable usage seems to embed the entire contents of the external `minipage` in a `savenotes` environment. But there will anyhow be collisions of the alphabetic enumerations. These collisions are there with or without `footnotehyper` (or `footnote.sty`.) I did not make any attempt, nor intend to in future, to address in an automatized manner these problematic contexts.

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```

1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{footnotehyper}%
3 [2018/01/23 v1.1 hyperref aware footnote.sty (JFB)]

```

no options The package has no options.

```

4 \DeclareOption*%
5   {\PackageWarning{footnotehyper}{Option '\CurrentOption' is unknown}}%
6 \ProcessOptions\relax

```

Versions up to v0.9f loaded `footnote.sty`, with lots of patching afterwards. Starting with v0.99, **footnotehyper** does everything by itself with `FNH@` prefix. Brief overview of some of the fixed issues:

- there was incompatibility with `hyperref`,
- and with `color`,
- if the `\@makefn` at the time of loading of `footnote.sty` does not have its argument visible at top level in its meaning, or is used multiple times there, then the footnote environment will lead to low level \TeX error,
- `footnote.sty` modifies `\parbox`,
- `footnote.sty` does some too early `\let`,
- the footnote environment from `footnote.sty` does not work if used with optional argument `[N]`.

Starting with v1.0, **footnotehyper** may be used also in absence of `hyperref`.

```

7 \newbox\FNH@notes
8 \newdimen\FNH@width
9 \let\FNH@colwidth\columnwidth
10 \newif\ifFNH@savingnotes
11 \AtBeginDocument {%
12   \let\FNH@latex@footnote \footnote
13   \let\FNH@latex@footnotetext\footnotetext
14   \let\FNH@H@@footnotetext \@footnotetext
15   \let\FNH@H@@mpfootnotetext \@mpfootnotetext
16   \newenvironment{savenotes}
17     {\FNH@savenotes\ignorespaces}{\FNH@spewnotes\ignorespacesafterend}%
18   \let\spewnotes \FNH@spewnotes
19   \let\footnote \FNH@footnote
20   \let\footnotetext \FNH@footnotetext
21   \let\endfootnote \FNH@endfntext
22   \let\endfootnotetext\FNH@endfntext
23   \ifpackageloaded{hyperref}
24     {\ifHy@hyperfootnotes
25       \let\FNH@H@@footnotetext\H@@footnotetext
26       \let\FNH@H@@mpfootnotetext\H@@mpfootnotetext
27     }
28     \let\FNH@hyper@fntext\FNH@nohyp@fntext
29   \fi}%
30   {\let\FNH@hyper@fntext\FNH@nohyp@fntext}%
31 }%

```

```

\FNH@hyper@fntext
\FNH@nohyp@fntext
\FNH@fntext

```

These are the **footnotehyper** replacement for `\@footnotetext` inside the `savenotes` environment. There is a version creating an hyperlink and another one not creating an hyperlink. The `\FNH@fntext` macro serves as general dispatch. This may be a place to customize if one wants to handle environments doing multiple

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passes: but the footnote counter must have been taken care of elsewhere. The code currently handles only the case of amsmath environments.

```

32 \def\FNH@hyper@fntext{\FNH@fntext\FNH@hyper@fntext@i}%
33 \def\FNH@nohyp@fntext{\FNH@fntext\FNH@nohyp@fntext@i}%
34 \def\FNH@fntext #1{\ifx\ifmeasuring@\@undefined
35   \expandafter\@secondoftwo\else\expandafter\@firstofone\fi
36   {\ifmeasuring@\expandafter\@gobbletwo\fi}#1%
37 }%

```

`\FNH@hyper@fntext@i` We do the `\ifHy@nesting` test although `hyperref`'s manual says "Allows links to be nested; no drivers currently support this."

```

38 \long\def\FNH@hyper@fntext@i#1{%
39   \global\setbox\FNH@notes\vbox
40   {\unvbox\FNH@notes
41     \FNH@startnote
42     \@makefntext
43     {\rule\z@\footnotesep\ignorespaces
44       \ifHy@nesting\expandafter\ltx@firstoftwo
45       \else\expandafter\ltx@secondoftwo
46       \fi
47       {\expandafter\hyper@@anchor\expandafter{\Hy@footnote@currentHref}{#1}}%
48       {\Hy@raisedlink
49         {\expandafter\hyper@@anchor\expandafter{\Hy@footnote@currentHref}%
50         {\relax}}}%
51       \let\@currentHref\Hy@footnote@currentHref
52       \let\@currentlabelname\@empty
53       #1}%
54   \@finalstrut\strutbox
55   }%
56   \FNH@endnote
57 }%
58 }%

```

`\FNH@nohyp@fntext@i` The original `\fn@fntext` had no `\long`.

```

59 \long\def\FNH@nohyp@fntext@i#1{%
60   \global\setbox\FNH@notes\vbox
61   {\unvbox\FNH@notes
62     \FNH@startnote
63     \@makefntext{\rule\z@\footnotesep\ignorespaces#1\@finalstrut\strutbox}%
64     \FNH@endnote
65   }%
66 }%

```

`\FNH@startnote` Same as original (the code comment is kept from original.)

```

67 \def\FNH@startnote{%
68   \hsize\FNH@colwidth
69   \interlinepenalty\interfootnotelinepenalty
70   \reset@font\footnotesize
71   \floatingpenalty\@MM% Is this right???
72   \@parboxrestore
73   \protected@edef\@currentlabel{\cname p@\@mpfn\endcname\@thefnmark}%
74   \color@begingroup
75 }%

```

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`\FNH@endnote` Fixed from original.
`76 \def\FNH@endnote{\color@endgroup}%`

`\FNH@savenotes` Same as original apart from using `hyperref-aware` `\FNH@hyper@fntext`, and taking into account `hyperref's` custom `\@footnotetext`. This was missed by v0.9f hence `\footnotetext[N]{..}` did not work inside `savenotes` environment. Fixed for v0.99.
 Maybe I should change the way `\@minipagerestore` is handled.
`77 \def\FNH@savenotes{%`
`78 \beginingroup`
`79 \ifFNH@savingnotes\else`
`80 \FNH@savingnotestru`
`81 \let\@footnotetext \FNH@hyper@fntext`
`82 \let\@mpfootnotetext \FNH@hyper@fntext`
`83 \let\H@@mpfootnotetext\FNH@nohyp@fntext % fool hyperref's \@footnotetext`
`84 \FNH@width\columnwidth`
`85 \let\FNH@colwidth\FNH@width`
`86 \global\setbox\FNH@notes\box\voidb@x`
`87 \let\FNH@thempfn\thempfn`
`88 \let\FNH@mpfn\@mpfn`
`89 \ifx\@minipagerestore\relax\let\@minipagerestore\@empty\fi`
`90 \expandafter\def\expandafter\@minipagerestore\expandafter{%`
`91 \@minipagerestore`
`92 \let\thempfn\FNH@thempfn`
`93 \let\@mpfn\FNH@mpfn`
`94 }%`
`95 \fi`
`96 }%`

`\FNH@spewnotes` This uses `\FNH@H@@footnotetext` which is the `\H@@footnotetext` `hyperref's` preserved original meaning of `\@footnotetext` not creating a link target.
 v1.1 fixes the bug about disappearing footnotes if `savenotes` environment is used inside a `minipage`. I had never really considered such usage, hence missed realizing there was a bug.
`97 \def\FNH@spewnotes {%`
`98 \endgroup`
`99 \ifFNH@savingnotes\else`
`100 \ifvoid\FNH@notes\else`
`101 \beginingroup`
`102 \let\@makefntext\@empty`
`103 \let\@finalstrut\@gobble`
`104 \let\rule\@gobbletwo`
`105 \ifx\@footnotetext\@mpfootnotetext`
`106 \expandafter\FNH@H@@mpfootnotetext`
`107 \else`
`108 \expandafter\FNH@H@@footnotetext`
`109 \fi{\unvbox\FNH@notes}%`
`110 \endgroup`
`111 \fi`
`112 \fi`
`113 }%`

`\FNH@footnote` We now take care of `footnote.sty's` footnote environment. The original `\fn@endfntext` is lacking a `\fn@endnote`, and this meant that `footnote.sty` was incompatible with `color/xcolor` packages. Also this `\fn@endnote` was `\let to \color@endgroup` which is wrong.

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Furthermore, independently of presence of the `\color/xcolor` issue, the `footnote.sty`'s `footnote` environment raised an error if used with an optional argument. `v0.9f` addresses this issue.

The `footnotetext` environment adds a complication, in case of optional argument we should not try to set up a link due to the fact that `hyperref` does not support it for the `\footnotemark[N]/\footnotetext[N]` syntax. And we need to make sure that the `footnote` and `footnotetext` environments obey the `\savenotes/\spewnotes` mechanism.

To handle all of this we code things completely differently from `footnote.sty`.

The `v0.9f \begin{footnotetext}[N]` inside `savenotes` tried to create an `hyperref` target. Fixed for `v0.99`.

Note: the `footnote.sty` code did a `\leavevmode\unskip` at entrance of `footnote` environment, which **footnotehyper** has not kept.

```
114 \def\FNH@footnote@envname {footnote}%
115 \def\FNH@footnotetext@envname{footnotetext}%
116 \def\FNH@footnote{%
117   \ifx\@currentenv\FNH@footnote@envname
118     \expandafter\FNH@footnoteenv
119   \else
120     \expandafter\FNH@latex@footnote
121   \fi
122 }%
123 \def\FNH@footnoteenv{%
124   \@ifnextchar[%
125     \FNH@footnoteenv@i %]
126   {\stepcounter\@mpfn
127     \protected@xdef\@thefnmark{\thempfn}%
128     \@footnotemark
129     \def\FNH@endfntext@fntext{\@footnotetext}%
130     \FNH@startfntext}%
131 }%
132 \def\FNH@footnoteenv@i[#1]{%
133   \begingroup
134     \csname c@\@mpfn\endcsname #1\relax
135     \unrestored@protected@xdef\@thefnmark{\thempfn}%
136   \endgroup
137   \@footnotemark
138   \def\FNH@endfntext@fntext{\@footnotetext}%
139   \FNH@startfntext
140 }%
141 \def\FNH@footnotetext{%
142   \ifx\@currentenv\FNH@footnotetext@envname
143     \expandafter\FNH@footnotetextenv
144   \else
145     \expandafter\FNH@latex@footnotetext
146   \fi
147 }%
148 \def\FNH@footnotetextenv{%
149   \@ifnextchar[%
150     \FNH@footnotetextenv@i %]
151   {\protected@xdef\@thefnmark{\thempfn}%
152     \def\FNH@endfntext@fntext{\@footnotetext}%
153     \FNH@startfntext}%
154 }%
```

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```

155 \def\FNH@footnotetextenv@i[#1]{%
156   \begingroup
157   \csname c@\@mpfn\endcsname #1\relax
158   \unrestored@protected@xdef\@thefnmark{\thempfn}%
159   \endgroup
160   \ifFNH@savingnotes
161     \def\FNH@endfntext@fntext{\FNH@nohyp@fntext}%
162   \else
163     \def\FNH@endfntext@fntext{\FNH@H@@footnotetext}%
164   \fi
165   \FNH@startfntext
166 }%

```

`\FNH@startfntext` This is used for the environmental form of the footnote environments. The use of `\box\z@` originates in `footnote.sty`, should I change that ?

`\FNH@endfntext`

Both of `\endfootnote` and `\endfootnotetext` are aliases for `\FNH@endfntext`.

The `\FNH@endfntext@fntext` may be `\@footnotetext` (which will be `\FNH@hyper@fntext` in `savenotes` environment), or `\FNH@H@@footnotetext`, or `\FNH@nohyp@fntext` if in `savenotes` scope.

```

167 \def\FNH@startfntext{%
168   \setbox\z@\vbox\bgroup
169   \FNH@startnote
170   \FNH@prefntext
171   \rule\z@\footnotesep\ignorespaces
172 }%
173 \def\FNH@endfntext {%
174   \@finalstrut\strutbox
175   \FNH@postfntext
176   \FNH@endnote
177   \egroup
178   \begingroup
179   \let\@makefntext\@empty\let\@finalstrut\@gobble\let\rule\@gobbletwo
180   \FNH@endfntext@fntext {\unvbox\z@}%
181   \endgroup
182 }%

```

`\@makefntext`
`\FNH@prefntext`
`\FNH@postfntext`

The definitions of `\FNH@prefntext` and `\FNH@postfntext` (which are needed for the footnote environment, `\FNH@startfntext` and `\FNH@endfntext`) are extracted from a somewhat daring analysis of `\@makefntext`. Contrarily to `footnote.sty`'s original code (which may result in low level \TeX errors when the footnote environment is executed) the method here will alert the user if the argument of `\@makefntext` is not visible at top level in its meaning or is used there multiple times. We also insert here some code to handle especially the case of `babel-frenchb`.

```

183 \AtBeginDocument{\let\FNH@@makefntext\@makefntext
184   \ifx\@makefntextFB\undefined
185     \expandafter\@gobble\else\expandafter\@firstofone\fi
186     {\ifFBFrenchFootnotes \let\FNH@@makefntext\@makefntextFB \else
187       \let\FNH@@makefntext\@makefntextORI\fi}%
188     \expandafter\FNH@check@a\FNH@@makefntext{1.2!3?4,}%
189     \FNH@@@1.2!3?4,\FNH@@@\relax
190 }%
191 \long\def\FNH@check@a #11.2!3?4,#2\FNH@@@#3{%
192   \ifx\relax#3\expandafter\@firstoftwo\else\expandafter\@secondoftwo\fi
193   \FNH@bad@makefntext@alert

```

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```

194   {\def\FNH@prefntext{#1}\def\FNH@postfntext{#2}\FNH@check@b}%
195 }%
196 \def\FNH@check@b #1\relax{%
197   \expandafter\expandafter\expandafter\FNH@check@c
198   \expandafter\meaning\expandafter\FNH@prefntext
199   \meaning\FNH@postfntext1.2!3?4,\FNH@check@c\relax
200 }%
201 \def\FNH@check@c #11.2!3?4,#2#3\relax{%
202   \ifx\FNH@check@c#2\expandafter\@gobble\fi\FNH@bad@makefntext@alert
203 }%
204 \def\FNH@bad@makefntext@alert{%
205   \PackageWarningNoLine{footnotehyper}%
206     {^^J The footnote environment will not be fully functional, sorry.^^J}
207     You may try to email the author with the following information:}%
208   \typeout{\meaning\@makefntext}%
209   \let\FNH@prefntext\@empty\let\FNH@postfntext\@empty
210 }%

```

`\makesavenoteenv` Same as original. Not recommended. Safer to use explicitly `savenotes` environment.

```

211 \def\makesavenoteenv{\@ifnextchar[\FNH@msne@ii\FNH@msne@i]}%
212 \def\FNH@msne@i #1{%
213   \expandafter\let\csname FNH$#1\expandafter\endcsname %$
214     \csname #1\endcsname
215   \expandafter\let\csname endFNH$#1\expandafter\endcsname %$
216     \csname end#1\endcsname
217   \FNH@msne@ii[#1]{FNH$#1}%$
218 }%
219 \def\FNH@msne@ii[#1]#2{%
220   \expandafter\edef\csname#1\endcsname{%
221     \noexpand\savenotes
222     \expandafter\noexpand\csname#2\endcsname
223   }%
224   \expandafter\edef\csname end#1\endcsname{%
225     \expandafter\noexpand\csname end#2\endcsname
226     \noexpand\expandafter
227     \noexpand\spewnotes
228     \noexpand\if@endpe\noexpand\@endpetrue\noexpand\fi
229   }%
230 }%

```

Original `footnote.sty` patches `\parbox`, we don't touch it. Also it defines a `minipage*` environment, we don't do it.

```

231 % \makesavenoteenv[minipage*]{minipage}
232 % \let\fn@parbox\parbox
233 % \def\parbox{\@ifnextchar[{\fn@parbox@i}{\fn@parbox@ii}}
234 % \def\fn@parbox@i#1[#2]{%
235 %   \@ifnextchar[{\fn@parbox@i#1[#2]}{\fn@parbox@ii#1[#2]}%
236 % }
237 % \long\def\fn@parbox@ii#1#2#3{\savenotes\fn@parbox#1[#2]{#3}\spewnotes}
238 \endinput

```