

cuts of "prominent philatelists" that look as though they were cut on pine and printed with mud.

In the *Halifax Philatelist* for June will be found copies of the official correspondence relating to the New Brunswick "Connell" stamp. It will be read with interest by all philatelists and will help, no doubt, to settle the dispute on this very rare issue.

For a first issue, the *Stamp Collector*, of Ottawa, Ill., is the best effort we have had the pleasure of reading for many months.

BRO. VOUTE has the field all to himself now, since the suspension of the *Western Philatelist*. The *Figaro* is improving with each issue and bids fair to outshine all its contemporaries. But the greatest wonder of all is—Bro. Voute has reformed! He don't intend to sling mud any longer. So says a recent number of the *Figaro* (but he slings it all the same). We don't believe you can reform, Voute. Eh?

TOWNSEND'S American Directory is certainly the neatest and handiest thing of the kind that has appeared, and is the only directory of stamp collectors worthy of the name since Handford's. It is all that Mr. Townsend claims it to be and should be in every library. Price 25cts. Akron, Ohio.

Our thanks are due Mr. Scott for a file of the *Calmar Exchange*, and Mr. Wetherell for a file of the *Agassiz Record*. The first named has been succeeded by the *United States Philatelist*; the other has suspended publication.

Curiosities of Alloys.

THE way in which an alloy of gold and copper or other metal is affected by a small quantity of impurity presents one of the most serious difficulties with which jewelers have to deal in working gold. It has long been known to workers in the precious metal that minute quantities of certain metals render it brittle and unworkable: and referring to this, in a lecture in Birmingham, Professor Roberts-Austen, of the Royal Mint, said: "It may be well to demonstrate the fact. Here are 200 sovereigns. I will melt them and will add, in the form of a tiny shot, a minute portion of lead amounting to only the 200th part of the mass, first, however, pouring a little of the gold into a small ingot, which we can bend and flatten, thus proving to you that it is perfectly soft, ductile and workable. The rest of the mass we will pour into a bar, and now that it is sufficiently cold to handle, you see I am able to break it with my fingers, or at least, with a slight tap of a hammer. The color of the gold is quite altered, and has become orange-brown; and experiments have shown that the tenacity of the metal—that is, the resistance of the gold being pulled asunder—has been reduced from eighteen tons per square inch to only five tons. These essential changes in the property of the metal have been produced by the addition of a minute quantity of lead." In the same lecture Professor Roberts-Austen said: "Here is a bar of tin, two feet long and one inch thick, which it would be most difficult to break, though it would readily bend double. If only I rub a little quicksilver on its surface, a remarkable effect will be produced—the fluid metal will penetrate the solid one, and in a few seconds the bar will, as you see, break readily, the fractured surface being white, like silver."