

## TEACHERS' DESK.

J. C. GLASHAN ESQ., EDITOR.

—We present our thanks to our correspondents for the numerous problems they have sent us during the last few weeks.

—One correspondent asks for solutions to the Arithmetic questions for second class certificates. The Publishers are not yet in a position to comply with the request. Another asks to be informed what is the best Theoretical Arithmetic. The Editor must defer answering this question till some future occasion.

—Contributors to the 'Desk' will oblige by sending answers with their questions and solutions with their problems. Attention is called to 'Young Teachers' Queries'; other questions of like practical character are solicited, as also are *essays* and *discussions* in answer. The latter should be on separate sheets from any matter intended for the 'Desk,' as they will be handed to the General Editors for insertion among "Contributions."

## CORRECT ANSWERS AND SOLUTIONS RECEIVED.

40 and 41, A. G. Campbell, Durham; S. C. Smoke, Paris; Con. O'Gorman, White Lake; Wm. Coutts, Hamilton; and A. McIntosh, Piikerton, the proposer. The last also sends remarks on 'Richard, King of the Romans,' and discussions of questions 37, 38, and 39.

## ANSWERS TO PROBLEMS.

36. Running the pattern across the room will require 7 widths of  $10\frac{1}{2}$  reversible patterns, or of 11 non-reversible patterns, being  $30\frac{1}{2}$  yds. and 32 yds. 3 inches, respectively. If the carpet be laid lengthwise of the room, there will be needed 6 widths of  $12\frac{1}{2}$  reversible, or of 13 non-reversible patterns.

This problem was proposed to draw attention to the non-practical character of many of the 'Text-book' problems, and of their solutions. He who buys carpet on a 'Text-book' estimate will, twenty chances to one, find, to his cost, that he has fallen into error. There are many problems of other kinds in our common arithmetics, which, if the student understood and realized, (made *real*) he would at once perceive to be either impossible or absurd. Of the latter kind many problems in stock

in our authorized Arithmetics are notable examples.

37. We cannot discover the difficulty here. We inserted the question hoping that some of our correspondents would enlighten us, but they have neglected to do so. Hold seems to be a noun derived from the p. p. of the Anglo-Saxon *helan*, to cover, from which we also get our verb *hold*.

38. Certainly, if we could discover no difficulty connected with the former question, a like complaint cannot be made of this. Rightly to answer this question, and to prove our statements, would require a dissertation on the origin and function of the Adjective and the Adverb in English, a dissertation that ought not to be needed with the materials in works on Comparative Grammar and on the Science of Language, so plentiful in the hands of our 'Grammar Makers.' But perhaps 'tis as well these 'Grammar Makers' have not seriously attempted the work, as their idea of proof is to found a theory upon a theory, and continue the process till, like the old woman's support of the earth, the last dwindles to nothing, and needs no support. An old writer on grammar said, *If you don't know what a word is, call it an adverb.* Modern writers seem to prefer to call such words conjunctions. In Horne Tooke's time, grammarians had made thirty-nine classes of conjunctions, (rather more classes than there were conjunctions,) and the list seems since to have been increased; 'co-relative' is one of the new breed.

*Not* is a negative adverb, denying *only*; *only* is an adjective, limiting *he*; (perhaps the noun sentence, there may be elision;) *but* is a conjunction, from the imperative of *botan*, to add; *also* is an adverb and originally seems to have modified the imperative *bot*, however; as making an adverb modify a conjunction would horrify our self-styled grammarians, the simplest way to settle the matter is to make it modify either *was* or *present*, according to taste.

39. The G. C. M. of two or more Nos. is the greatest measure (or unit) in which two Nos. or quantities can be expressed as integer multiples of the measure (or unit). Thus, take two lines, 12 inches and 13 inches long, respectively, and the