

therefore $DIH = FE$, and therefore HGE is an equilateral triangle equal to ABC . The numerical values of GD , DF , FG , DE , EF are known. From E and G draw EK , GL perpendicular to DF . Then by 13th of Euc. Bk. II., EK , GL , FK and DL may be calculated. Then KL being known, we have $GE = \sqrt{(KL)^2 + (EK + GL)^2}$. Thus knowing a side of the equilateral triangle we have its area.

5. A tree AB , 100 ft. long, standing on a declivity, is broken at C , the top doubles over and touches a point E lower than C , so that $AE = 50$, and AD drawn at right angles to AC to meet CE in D , is 80. Find the lengths of AC and CE .

We shall suppose the numbers given above to be 10, 5 and 8 respectively. Let $AC = x$, then $CE = 100 - x$. Draw EF perpendicular to CA to meet it produced in F . Then $CD = \sqrt{9+x^2}$; $\therefore EF = \frac{10-x}{\sqrt{9+x^2}}$ of 8; $\therefore AF = \sqrt{25 + \frac{(10-x)^2}{9+x^2}}$ of 9. Then by 12th

of Euc., Bk. II., $(10-x)^2 = x^2 + 25 + 2x \sqrt{25 + \frac{(10-x)^2}{9+x^2}}$ of 9,

a biquadratic for finding x . We are informed that $x = 3.1842$, i.e., $AC = 31.842$, and $\therefore CE = 68.158$. Our readers may endeavour to find a solution by which the biquadratic is avoided.

Practical Department.

LONG OR BUGLE U.

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Here is an extract from a recent number of the *Canadian Illustrated News*, which is of interest to teachers:—

"Ninety-five out of every hundred Northerners will say institute, instead of institute, dooty instead of duty—a perfect rhyme to the word beauty. They will call new and news noo and noos—a perfect rhyme to pew and pews, and so on through the dozens and hundreds of similar words. Not a dictionary in the English language authorizes this. In student and stupid the "u" has the same sound as in cupid, and they should not be pronounced stoo-dent and stoop-id, as so many teachers are in the habit of sounding them. If it is a vulgarism to call a door a doah—as we all admit—isn't it as much of a vulgarism to call a newspaper a noospaper? When *Punch* wishes to burlesque the pronunciation of servants, it makes them call the duke the dook, the tutor the tootor, and a tube a toob. You never find the best Northern speakers, such as Wendell Phillips, Chas. Sumner, George William Curtis, Emerson, Holmes, and men of that class saying noo for new, or Toosday for Tuesday, avenoo for avenue, or calling a dupe a doop. It is a fault that a Southerner also never falls into, nor a Canadian either."

"Nor a Canadian either!" The readers of the JOURNAL who reside in Quebec and Ontario may skip what follows, but I can vouch for it that the suggestions I have to offer are quite as worthy the attention of teachers in the Maritime Provinces as of the "Northerners" so pointedly referred to by the *News*. In the speech of most of the people of the Maritime Provinces the "vicious u" does dooty on all occasions. One does not hear, however, as one often does in some other parts of Canada, so much as a whisper of "jewks," and "chunes" and "chubes." It is possible, therefore, that some teachers in Ontario or Quebec may recognize familiar acquaintances among the examples which follow. As in spelling so in pronunciation, it is the forms in which mistakes occur to which the attention of the pupil should be specially directed. The following memoranda will enable teachers whose pupils fail to use the "bugle u" on all proper occasions, and are given to toot-ing or chute-ing, intelligently to "drill out the wrong and drill in the right:"—

$\left. \begin{array}{l} u, \\ eu, \\ *ew, \\ ieu, \\ ieu, \end{array} \right\} = \text{you or yu,}$

I. The long U is commonly pronounced correctly in all words in which it, or its equivalent diphthong, is preceded by b, c, f, g, h, m, p, v, or y.

EXAMPLES:—Bugle, tribune, Cube, excuse, skew; Fume, few, foud; Gewgaw; Hne, how; Mute, mew; Pure, pew; View; Yow. Also in words beginning with long u,—Use, ewe.

Observe that in these words the long u, or its diphthong, is correctly pronounced as yu, e. g. bugle = byu-gle, not boogle; cube = cyube, not coob; mute = myute, not moot; hne = hyue, not hoo.

II. But long U is commonly mispronounced in all words in which it, or its equivalent, is preceded by d, n, s, or t.

EXAMPLES.

1. Long u preceded by d:—Duke, dupe, duty, dutiful, due, dew, during, durable, duration, endure, adduce, educe, induce, reduce, seduce, adieu, bedow, subdue, e. g.:

MISPRONOUNCED.		INSERT y BEFORE u AND PRONOUNCE THUS :		
Duty,	dooty or tjewty.	-yu-ty,	dyu-ty,	Duty.
Due, }	doo or jew.	-yue,	dyue,	Due.
Dew, }		-yew,	dyew,	Dew.
Duke,	dook or jewk.	-yuke,	dyuke,	Duko.
Endure,	endoor or enjewr,	-yure,	-dyure,	Enduro.
Adieu,	adoo or ejew.	-yieu,	-dyien,	Adieu.

2. Long u preceded by n:—Nude, numeral, numerate, numeration, numerous, innumerable, nuisance, nutrition, avenue, neuter, neutral, neuralgia, new, news, newspaper, renew, newt, e. g.:

MISPRONOUNCED.		INSERT y BEFORE u AND PRONOUNCE THUS :		
Nude,	nood,	-yude,	nyude,	Nude.
Neuter,	nooter,	-yen ter,	nyeu-ter,	Nouter.
New,	noo,	-yew,	nyew,	New.

3. Long u preceded by s:—Sue, snet, pursue, pursuit, suit, suitably, suitor, assume, presume, superfine, superficial, superintend, superstition, supervise, e. g.:

	MISPRONOUNCED.	INSERT <i>y</i> BEFORE <i>u</i> AND PRONOUNCE THUS:		
Sue,	soo or † shu,	-yue,	syue,	Sue.
Assume,	-soom or -shume,	-yume,	-syume,	Assume.
Superfine,	sooper- or shuper-	-yuper-	-syuper-	Superfine

4. Long u preceded by t:—Tune, tuneful, attune, tube, tubular, tuberoso, tumult, tumor, tumid, tulip, tunic, tutor, tuition, Tuesday, institute, institution, obtuse, constitute, constitution, constitutional, restitution, costume, stew, steward, Stuart, Stewart, student, studios, stupid, stupor, -tude as in magnitude, multitude, fortitude, solitude, e. g.:

MISPRONOUNCED.		INSERT y BEFORE u AND PRONOUNCE THUS:		
Tune,	toon or tchune.	-yune,	tyune,	Tune.
Tube,	toob or chube.	-yube,	tyube,	Tube.
Institute,	-toot or -chute.	-yute,	-yute,	Insti-tute.
Costume,	-toom or -chume	-yume,	-tyume,	Costume.
Stew,	stoo or -siehu.	-yew,	-tyew,	Stew.
-tude,	-tood or chude.	-yude,	-tyude,	-tude.

REMARKS.—The long sound of u preceded by l is between that of oo in room and yu, approaching the latter more closely than the former; plume, flume, flute, lute, lure, allude, lewd, lurid, revolution, conclude, conclusion, allusion, clue, blow, clue, clew

The long sound of u preceded by r in the syllable is that of oo in room; true, truth, rue, rule, cruel, gruel, imbrue, brow, dre.

* Except in *sew*, *shew*, *strew*, *blew*, *clew* and *sewer*.

† In these latter pronunciations the long sound of u is correctly given, but the sound of the preceding consonant is improperly changed. S has the sound of sh before u in *sure*, (and in some words ending in -sure,) and in *sugar*, *sumach*, and *sensual*.

MISTAKES IN SCHOOL MANAGEMENT.

NO. I.—BY JAMES HUGHES.

IT IS A MISTAKE TO NEGLECT THE DETAILS OF SCHOOL MANAGEMENT. What are regarded by many as "minor points" unworthy of attention, in reality form the distinction between a well-managed and a poorly-conducted school. Minor points they may be, but the mistake consists in regarding them as therefore unimportant. J. R. Blakiston, one of the most thoughtful of Her Majesty's Inspectors of Schools in England, says: "The least gifted may take heart when he bethinks him that success in school management