(5.) If any point whatever be joined to the vertices of a triangle, and from the point perpendiculars be drawn to the joining lines, these will meet the sides opposite to the corresponding vertices in three points in the same straight line.

Query.—Is any reader of the *Journal* acquainted with an artifice for the reduction of $x^2+y=11$, $x+y^2=7$ to the quadratic form?

2. THE PRINCIPLES AND PRACTICE OF EDUCATION; OR, THE SCIENCE AND ART OF TEACHING.

BY GEORGE VICTOR LE VAUX, F.C.T.

(Continued from last No.)

COURTESY OF MANNER AND OTHER CHARACTERISTICS.

Every person desirous of being a successful teacher, should possess an extensive knowledge of human nature, and especially that of children. Sensible and cautious, he should know when to censure, and when to praise—when to rule their passions, when to guide their affections, and when to direct and govern their ambition. Kindness of disposition, and courtesy of manner, will enable him to rule both young and old with an almost despotic sway. Let him, therefore, endeavour to possess those noble and pleasant characteristics. He should never fail to cordially greet the parents of his pupils wheresoever he meets them. In public and in private he should always act so as to merit and win their confidence and esteem. In like manner, wherever he meets his pupils, (or any of them) he should always recognize them courteously—with smiles, not with frowns, with kind and affectionate looks, not with a stern countenance. He should teach his pupils politeness, not only by precept, but by example. He should never fail to impress on their minds that they "should rise up before the hoary head, and honor the face of the old man." We may be excused if we digress for a moment, to relate from Ancient History, an anecdote which would seem to be a commentary on the foregoing quotation—an anecdote exhibiting clearly and fully what we mean by true politeness, whilst it affords an example worthy of imitation by the youth of every age.

On a certain memorable occasion, in days gone by, a number of Greeks assembled at an Athenian theatre to see the acting of a "star" of primitive times. The Spartan ambassador and his countrymen occupied a part of the house opposite that allotted to the Athenian aristocracy. When the actor had got about half through,* and during an intermission in the play, it happened that an old man, a citizen of Athens, came in, whose head was white with the snows of age. The young Athenian aristocrats resolved to have a joke at his expense, and, therefore, pretending to make place for him, beckoned that he should come amongst them and take a seat. He did so, but when about to sit down, "the wags" closed on either side and re-occupied the vacant space. They then laughed at the chagrin of the old man. The gallant young Spartans having observed this rude and insolent "performance," every man of them rose instantaneously and remained standing, whilst one of their number went over to the old gentleman and begged permission to conduct him to a seat. The old man complied, and, leaning on the arm of the noble youth, crossed to the other side of the house, where he was requested to take the most honourable seat. Having done so, the whole band of Spartans quietly resumed their seats. The people in the galleries having observed this noble conduct, cheered and re-cheered the gallant Sacaddemonians, and the rude Athenians, now blushing at their own conduct, held down their heads with shame. Both parties received their reward-remorse was the lot of the one, and an approving conscience the glory of the other. When the cheers had died away, the worthy sage arose, and after thanking the kind "foreigners" for their attention and example, expressed his regret that his fellow citizens, knowing what was right, did what was wrong; but was glad to find "the Spartans practised what the Athenians knew." Thenceforth, Spartan courtesy was praised in every Grecian home. By that one act these young men have set a worthy example to the youth of every age, and have, therefore, made the world their debtors for time and eternity. Macaulay, referring to this act, writes as follows :-

y, referring to this act, writes as follows:
In Athens, ere its sun of fame had set,
'Midst pomp and show the gazing crowds were met,
Intent for ever upon something new—
The mimic wonders of the stage to view.
The seats were filled, but ere the show began,
A stranger entered—'twas an aged man.
A while he sought a place with aspect mild,—
The polished Athenians sat and smiled.
How poor the produce of fair learning's tree,
That bears no fruit of sweet humility.
The Spartan youths had their appointed place
Apart from Athen's distinguished race,
And rose with one accord, intent to prove
To honoured age their duty and their love;

*Some authors say "before he commenced."

Nor did a Spartan youth his seat resume
Till the old man found due and fitting room.
Then came the sentence of reproof and praise,
Stamped with the sternness of ancient days;
For, standing full amidst the assembled crowd,
The venerable stranger cried aloud:
"The Athenians learn their duty well; but lo!
The Spartans practise what the Athenians know."
The words were good, and in a virtuous cause—
They quickly earned a nation's glad applause
But we have surer words if precept given
In God's own Book—the words that came from Heaven:
"Be kind, be courteous, be all honour shown—
Seek others' welfare rather than thine own."

Real courtesy should be a leading characteristic of every teacher—we mean true politeness—that politeness which springs from benevolence, and the genuine kindness of a noble heart. This characteristic is indispensably necessary to his success. Being cheerful in disposition, kind and courteous to children, parents, friends and enemies, he cannot possibly fail to obtain the esteem and good will of all, both intelligent and ignorant. He will thus obtain a good name, which is "more desirable than great riches." The experiment will cost him nothing; let him try it.

No vulgar jests, no coarseness of language, no disagreeable epithets, and, above all, no profanity, should ever stain the lips, habits, or character of the teacher. His language should be always pure, accurate and chaste. By precept and example he should instruct the rising generation to be guided in all things by the word of Him who said, "Whatever ye would that men should do unto you, even so do unto them." Should he do so well and faithfully, an abundant harvest will be the result of his labours, and in days to come, "many will rise up and call him blessed."

REGULARITY AND PUNCTUALITY.

The teachers should be regular and punctual in everything he undertakes. It behoves him to be always a bright example of order and system, not only for his own sake, but for that of the imitative beings committed to his charge. System in all things, and punctuality in everything, should be the order of his life. Otherwise he cannot induce his pupils to practice them. Unless his own actions exemplify his precepts, he cannot, with propriety, insist on their observance by others. He who neglects to practise what he teaches or preaches, is, at best, but a recruiting agent for the already numerous army of hypocrites. His tongue says one thing and his actions say another, of opposite or different import, so that he is divided against himself. How contemptible! As time rolls away, he gradually sinks in public estimation, and the only thing in which he succeeds is in making himself ridiculous. If possible, the teacher should never be late in his attendance at school. As a rule, he should arrive at least five minutes before the time, and dismiss his pupils punctually when their time is up. If he love not punctuality and regularity himself, how can he expect his pupils to do so? It is true that "method is the hinge of business," and there can be no method without punctuality.

NOT TO UPBRAID HIS PUPILS WITH CERTAIN DEFECTS.

Moreover, the teacher should be particularly careful never to upbraid a pupil with his (or her) mental or physical defects. It is not gentlemanly—it is not consistent with refined feeling and Christian principle to do so. On the contrary, his interest in, and kindness towards the party should be the more marked in consequence of these defects. Above all, he should be careful not to allude to them or their accompanying singularities of manner in the presence of other pupils. Even when addressing a pupil, the teacher should not gaze on, or appear to notice, any physical defects with which he may be afflicted.

PERSONAL QUALIFICATIONS OF THE TEACHER.—THE SCHOOLMASTER
ABROAD,

The school is a minature world, and the teacher is its legislative, judicial and executive officer. How few are qualified to unite in themselves and properly discharge those three-fold functions? Such men, if to be had at all, are rarely found. One such man would be worth more than all the gold and silver in the world. The teacher is the life of the sphere in which he moves. He moulds the character of the rising generation, and they, in turn, shall mould and rule the destinies of their fellow-men. How important, therefore, that he should be worthy of his position, for "as the teacher, so shall be the pupils." His profession is certainly not remunerative in proportion to its utility. It is, nevertheless, keeping pace with the march of civilization. Indeed, the educator himself is the great civilizer of the world. "The schoolmaster is abroad," said one of England's worthies, "and the masses are rising in the social scale—knowledge shall give them that power they so well deserve."

ATTAINMENTS AND REMUNERATION.

Without teachers man, in the course of a few generations, would