



Fig. 1.

MODERN VILLA RESIDENCES DUNEDIN—BASIL B. HOCOPER A.R.B.A., ARCHITECT



Fig. 2.

£2,000. Messrs. Penty & Blake are the successful architects for the High School Competition at Dannevirke, which was decided last week.

The Hygiene of the House.

Dr. Somerville Hastings lecturing at the Institute of Hygiene, London, on "The Hygiene of the House," said that everything about a home should conform to the requirements of health, comfort, and economy of service. A craze for grandeur had fastened itself, like an incubus, upon middle and even working-class family life. The best rooms, the most roomy and best-lighted in the all-too-small dwellings were set apart and dedicated, like temples, for the occasional worship of the unattainable in regard to artistic environment. The prim orderliness of these sacred apartments was neither a thing of beauty nor a source of comfort to the true home lover, who entered in a state of suppression and unrest, and finally banished himself to metaphorical freedom to enjoy his pipe in the kitchen or elsewhere. What should be the one bright spot in the home was turned into a garnished dungeon, devoted to musty odours, damp, and mould while the family was cribbed, cabined, and confined in the gloomy back sitting-room of smaller proportions and insufficient window space. The unhygienic fashion which demanded thick pile carpets, heavy curtains, immovable articles of furniture, cornices, mouldings, cupboard tops, and similar dust collectors, which formed the most potent factor in the creation of that reign of topsy-turvydom known as the "spring clean," was a very potent evil, but very difficult to deal with. Each part of a room and its contents must be so constructed that every surface, whether of floor, wall, ceiling, or furniture, should lend itself to easy methods of cleaning at frequent intervals. Once set this up as a canon of house-keeping, and the canons of art would accommodate themselves so that we should not only have the house wholesome but the house beautiful.

Repairing Your Own Saw.

By DWIGHT L. STODARD.

(For illustration see page 168.)

THE ability of the mechanic may depend somewhat on his knowledge of the square, to be able to lay out his work, and his skill with his hammer to drive the nail home and complete his job. These tools might be bright, clean and new, or dull, rusty, and old, and yet it would make very little difference with his day's work. But quite different is the saw, the tool that really does the work the square has laid out ready for the hammer to nail up. To use a rusty, dull saw with teeth all out of shape from continued use, is bound to make a dull mechanic, (I care not how bright or keen he might be in the beginning), and in time take the temper all out of him, even if it doesn't hurt the temper of the saw. Now, this is not new—all mechanics know it. Yet it is so surprising how many use a dull, rusty, out-of-shape saw, that looks very much indeed like fig. 1. Some might say that when a saw got in as bad shape as that, the best thing to do would be to send to the manufacturers and have new teeth cut on it, and I'll agree that might be best. Anything at all would be better than to use it longer in that shape. But many do not live handy to a saw works, and could not well be without the saw as long as it might take. And my experience has been that

no real mechanic wants to put his tools into some one else's hands to be shaped up, even if the most practical saw man in the world lived next door. He would prefer to shape up his own tools. It is his own hand, arm, muscle, and brain that must force the saw to cut to the line, and it should be his own hand, arm, muscle, and brain to force the file, to shape the teeth to suit his individual way of sawing. For a saw like fig. 1, all covered with rust, the first application should be pumice stone and kerosene. I know nothing better or cheaper unless you scour it off in the ground or with a brick, and that is not quite as good. Then with a flat file joint it, as shown in fig. 2. And as it would be pretty hard to get all the teeth the same size to keep filing it with the right angle bevel or fleam, it is best to file square across and get the teeth all of a size and shape as fig. 3. Then lay it flat on a plank and take a common nail set and strike a fair blow with a hammer every other tooth, turn the saw over and complete the setting, and it should look like fig. 4. The above is a good way to set a saw, and I have never broken a tooth or cracked a blade with that method. If properly done it bends the tooth only, and does not in any way bend the blade of the saw,

needle would run down from one end to the other without jumping out. If it jumps out there is a bad spot of filing that should be attended to. For a compass saw or a saw for general use, that cuts diagonal sheathing and rafter cutting, which is diagonal cutting, and about as much ripping as cutting off, should be given more pitch and less fleam, as fig. 7. In filing saws the point of the file should point towards the point of the saw. (See the point.) A cut-off saw should be pointed rounding (not very rounding), yet too much does not hurt it as much as a rip saw, which is better to be about, or quite, straight. A rip saw should be filed square across, as fig. 8. The little nib on the top of the point of a saw was put there by the manufacturers as an ornament, but to the carpenter instead of being a rose it has proved to be a thorn, and I am glad to say is being left off from many of the saws of to-day. In my day I have seen no practical change in saws. The different methods of filing with special files that from time to time have given us such great improvement, have apparently faded away in a day, and are seldom seen any more, and I have no doubt but the old-fashioned three-cornered file will file our saws for ages to come. The only improvement in saws that I have been able to note is the tempering and polishing of the steel, and bringing it up nearer to perfection until to-day we have silver steel, which is as near perfection as man has been able to reach. The only marked improvement that I have been able to discover is in the Perfection handle, which has been introduced the last few years, and is simply placing the handle more on the saw, as fig. 9 illustrates, while the dotted lines show the old style. To us carpenters that have used the old style all our lives, I will admit the new style seems odd. Yet I believe any carpenter that will give it a thorough and honest trial will agree with me it is the right way and will, like myself, regret that the old saws do not hang like the new. Much more could be said, but I have made my article too long now and I trust enough has been said to make the carpenters think more about their saws and some of them to get at it and make their life's work much easier.



NEW PREMISES OF WELLINGTON BUILDING AND INVESTMENT CO., LTD.—THOS. TURNBULL AND SON, F.S.R.I.B.A., ARCHITECTS.

as many do with some of the hand-sets. But Morrill's latest hand-set, if properly used, does the work nicely, and to a great extent avoids too much set, which is a very common fault. The file, giving it the proper angle and bevel or fleam, and for general use should be like fig. 5. For fine work in soft wood give it more fleam, and for hardwood, less. When you have finished filing, look down the edge of it and it should have a little groove as fig. 6, that a

The question of the invasion by women of the professions and occupations hitherto held exclusively by men is becoming one that cannot be regarded with unmixed satisfaction. When, a generation ago, women pleaded pathetically for the right to work, for opportunities to use the mental powers they knew they possessed, slowly and reluctantly trades and professions threw down their bars, and colleges and universities opened their doors, women did not anticipate what work should ultimately be thrust on them. The increasing introduction of labour-saving machinery into factories has led to quite a remarkable displacement of male labour by female. The skilled workman is ousted by the intelligent girl, watching and feeding a machine, at lower wages. This is most marked in the United States, where, as shown by the census, the women workers increased during the last thirty years of the century by 189 per cent., while the men workers increased only 122 per cent. In the United States there are 5,000,000 women earning their living, of whom 400,000 to 500,000 are engaged in professional work, the profession of dentistry claiming 800. It is impossible to view this great activity of women, outside of home, without considerable anxiety, and if it were not for the belief that women have a strong sense of duty, and that human nature is, after all, the tyrant that has to be obeyed, there would be grave fears for the future of the race.