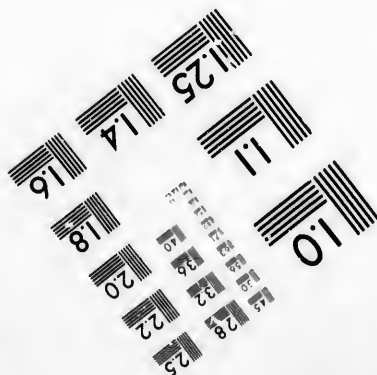
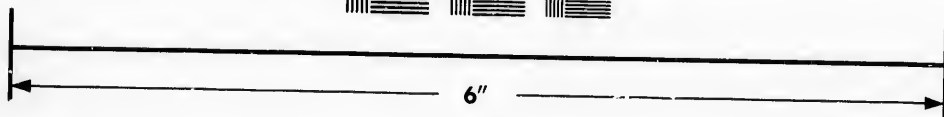
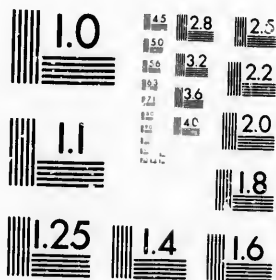


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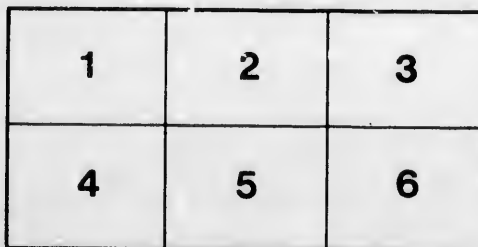
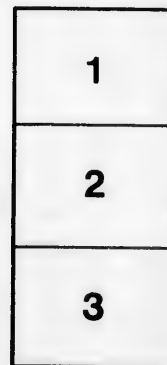
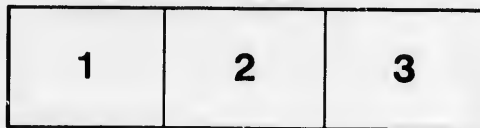
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History

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NOTE.—The dotted line shows the route taken by Prof. BUDD and Mr. GIBB, in
1882. The places underlined are those visited.

MAP OF PART OF RUS

(From the Report of the Fruit Growers' Assn.
Ontario, 1883.)



NOTE.—The dotted line shows the route taken
1882. The places underlined are those visited.

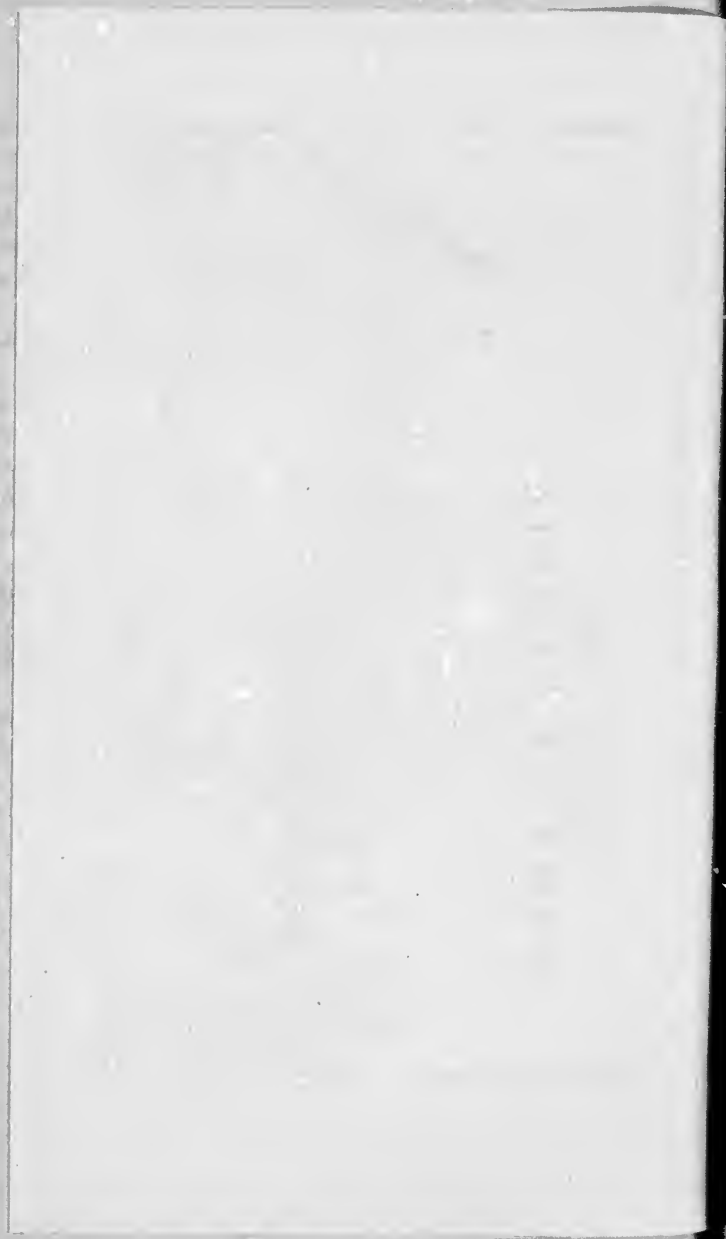
1884.

MAP OF RUSSIA.

Fruit Growers' Association of
Ohio, 1883.)



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ON THE
RUSSIAN APPLES

IMPORTED BY

U. S. DEPARTMENT OF AGRICULTURE

IN 1870.

BY

CHARLES GIBB,
ABBOTTSFORD, QUEBEC, CANADA.

(Being a Paper from the Ninth Report of the Montreal Horticultural Society.)

MONTREAL:
PRINTED BY GAZETTE PRINTING COMPANY.

1884.

CATALOGUE
OF
APPLE-TREES IMPORTED IN 1870

FROM
ST. PETERSBURG, RUSSIA,

BY THE
UNITED STATES DEPARTMENT OF AGRICULTURE,

*Scions of which have been distributed under the
following numbers.*

No.	RUSSIAN NAMES.	TRANSLATION.
†* A 1	Astrachaner, Rother.....	Red Astrachan.
" 2	Weisser Calville, Sommer.....	White Summer Calville.
* " 15	Süssapfel von Toenarius.....	Von Toenarius Sweet apple.
* " 44	Astrachaner, Weisser.....	White Astrachan.
* " 54	Luikenapfel.....	Luiken apple.
* " 60	Anasapfel, Rother.....	Red Duck apple.
* " 61	Edler Rosenstreifling.....	Noble Redstreak.
* " 68	Champagner, Früher.....	Early Champagne.
* " 69	Sommer Birnapfel.....	Summer Pear apple.
" 70	Winter Birnapfel.....	Winter Pear apple.
* " 105	Graftensteiner, Russischer.....	Russian Gravenstein.
* " 122	Borsdorfer Revaler.....	Borsdorf Revel apple.
" 128	Schafnase.....	Sheepnose apple.
* " 153	Skvoasnoi Nalin.....	Transparent Juicy apple.
* " 157	Belui Nalin.....	Juicy White.
* " 159	Limonoe.....	Lemon apple.
* " 161	Langerfeldskoe.....	Longfield's apple.
* " 162	Buschbon.....	Buschbon.
* " 164	Polosatoe Heidorns.....	Heidorn's Streaked.
* " 166	Aport Letny.....	Summer O'Porto apple.
* " 167	Scholtoe Sladkoe.....	Yellow Sweet.
" 169	Sclenka Sladkaya.....	Green Sweeting.
* " 170	Revelskoe.....	The Revel apple.
" 171	Stekliannoe Z Simowoe.....	Glass Winter apple.
" 173	Skorospelka Rannaja.....	Earliest Early.
* " 174	Pipka, Malaja.....	Little Pipka.
* " 176	Krasnabakoe.....	Red-sided apple.
* " 177	Schlenka, Polosstaja.....	Green Streaked.
* " 178	Barlowskoe.....	Barloff's apple.

†The numbers marked with an asterisk (*) are those described or referred to in the following paper.

No.	RUSSIAN NAMES.	TRANSLATION.
* A 180	Nejolowskoe	Negoloff's apple.
* " 181	Pipka Champanskaja	Champagne Pipka.
* " 182	Kalville Kwasniletny	Calville Summer-red.
* " 183	Burlowka	Burloffka apple
* " 184	Arabeskoe	Arabian apple.
* " 185	Anisowka	Anisette.
* " 186	Steklianka Revels Kaja	Glass Revel apple.
* " 187	Steklianka Selonka	Glass Green apple.
* " 188	Arkad Scholti	Yellow Arcadian apple.
* " 190	Tiesenhausenskoe	Tiesenhausen.
* " 196	Polosatoe Sladkoe	Streaked Sweet.
* " 197	Kriwospizoe	Curly Spiced apple.
* " 198	Polu Mirou	Crossed Barbel.
" 199	Naleiv Woskowoi	Waxed Juicy.
" 200	Repka Rosowaja	Rosy Little Turnip apple.
* " 202	Saitschia Pipka	Hare Pipka.
* " 203	Arkad	Arcade.
* " 204	Rubez	Cut apple.
* " 205	Kajabowka	Karaboff apple.
* " 206	Zarski Schip	Czar's Thorn.
* " 207	Stupka	Stoupka.
* " 208	Korolewskoe	Royal.
* " 210	Rubezuinogradni	Cut Wine apple.
* " 212	Berkowskoe	Berkoff's apple.
* " 213	Stepanouka	Stepanoff's apple.
* " 214	Sadowskoe	Garden apple.
* " 215	Kustoe	Bushy apple.
" 217	Sacharnoe	Sugar Sweet.
* " 218	Fokinskoe	Fokin's apple.
* " 219	Belaja Tebedka	White Swan.
* " 220	Scholkowka	Silken apple.
* " 225	Getmanski Bob	Getman's Bean.
* " 226	Rubez Belui	White Cut.
* " 228	Krimskoe Wochina	Vochin's Crimean apple.
* " 230	Titouka	Titus apple.
* " 231	Solotoi Arkad	Yellow Arcadian.
* " 234	Muscatelnoe	Muscatel.
* " 236	Antonouka	Anthony's apple.
* " 240	Teschanka	Lieby apple.
* " 242	Schriokolitschiko	Broadleaved.
* " 245	Borouinka	Mushroom.
* " 246	Plodowitka	Prolific.
* " 247	Popouka Polosataja	Popoff's Streaked.
* " 248	Beel	White.
* " 252	Aport	O'Porto apple.
" 260	Simnoe Polosatoe	Winter Streaked.
* " 261	Aport Reptschati	O'Porto Turnip Seedling.
* " 262	Charlamowskoe	Charlamoff.
* " 264	Duchowoe	Smelling apple.
* " 265	Pipka Govkaja	Butter Pipka.
* " 266	Polosatoe Nowgorodskoe	Novgorod Streaked
" 267	Gruscheffka	Pear apple.
* " 268	Sakaritnoe	Saccharine.

No.	RUSSIAN NAMES.	TRANSLATION.
* A 269	Aport Rosowui.....	O'Porto Rosy.
* " 272	Schapotschka.....	Little Hat apple.
" 273	Grnscheffka Beennaja.....	Autumn Pear apple.
* " 274	Rosowoe.....	Rosy.
* " 275	Sototoreffka.....	Zolotoreff's apple.
" 276	Polo Stekianka.....	Half Glassy.
* " 277	Wargul.....	Wargul.
* " 278	Borowinka Krasnaja.....	Red Mushroom.
* " 279	Aportowoge Simowoe.....	Winter O'Porto.
* " 282	Renetto Woroneschski.....	Woronech's (name of a province).
" 283	Slast.....	Apple Sweet.
* " 284	Steklianka Kremer's.....	Kremer's Glassy.
* " 285	Repristoe Walisonoe.....	Turnipy Juicy apple.
* " 286	Kremerskoe.....	Kremer's (seedling).
" 287	Rigaer Skwosnoinalin.....	Riga Transparent Juicy.
* " 288	Malinowskoe.....	Raspberry.
* " 290	Ukrainskoe.....	Ukraine apple.
" 295	Imperial.....	Imperial.
* " 304	Suislepper.....	Switzer.
" 310	Christapfel.....	Christmas apple.
" 313	Muscatapfel.....	Muscat or Persian apple.
* " 315	Herrenapfel.....	Lord's apple.
* " 316	Rothe Reinette.....	Red Queen.
* " 317	Golubinoe Beeloe.....	White Pigeon.
* " 321	Pipka Sladkaja.....	Sweet Pipka.
* " 322	Kovitschneoe.....	Brownly apple.
* " 323	Repouka.....	Turnip apple.
* " 324	Neemezki Kalville.....	German Calville.
" 327	Scholti Arkad.....	Yellow Arcadian apple.
* " 330	Polosatoe Naliwnoe.....	Juicy Streaked.
* " 332	Plodowitka Ramaja.....	Early Prolific.
* " 333	Skwosnoi Krasnoi.....	Red Transparent.
* " 334	Skwosnoi Schotoi.....	Yellow Transparent.
* " 335	Skwosnoi Selennoe.....	Green Transparent.
* " 336	Skwosnoi Beeloe.....	White Transparent.
* " 337	Scrinka.....	Grayest.
* " 338	Gruscheffka Revelskaja.....	Revel Pear apple.
" 339	Reinetti Beelui.....	White Queen.
* " 340	Himbeerapfel, Lievlander.....	Lowland Raspberry.
" 341	Borsdorfer.....	Borsdorf.
* " 342	Scharlottenthaler Golba.....	Charlottenthaler (the name of a place) apple.
* " 343	Weinapfel Rother.....	Red Wine apple.
* " 344	Sultanapfel.....	Sultan apple.
* " 350	Lapouch.....	Burr apple.
* " 351	Plodowitka Cuadkaja.....	Prolific Sweeting.
" 352	Swonkoe.....	Resonant apple.
* " 354	Kriwospizoe Aromatnoe.....	Curly Spiced Aromatic.
* " 355	Aport Herbst.....	Autumn Orange.
* " 359	Motschetschnoe.....	Wetting apple. Literally, apple to be preserved in water (as done in Russia).

No.	RUSSIAN NAMES.	TRANSLATION.
* A 360	Funtowoe	Pound apple.
* " 362	Swinzoffka	Lead apple.
* " 364	Beel Wochins	White Wochins (a name) apple.
* " 367	Polosatoc	Red Streak.
* " 368	Mirone Sacharni	Sugar Barbel.
* " 369	Pipka	Pipka.
" 370	Lebedka	Swan apple.
* " 371	Skrut, Deutscher	SkROUT, German.
* " 372	Petrowskoe	St. Peter's.
* " 374	Wislowchoe	Pendent Ear apple.
* " 375	Koritschewoe Ananasnoe	Brown Pine apple.
" 377	Limonnoe Scholtoe	Yellow Lemon.
* " 378	Orsimui	Hibernal apple.
* " 380	Gruscheffka Moskoloskaja	Moscow Pear apple.
* " 382	Buzkafa Selonka	Russian Green apple.
* " 385	Bodewskoe	Bode's apple.
* " 387	Cobrui Krestianin	Good Husbandman apple.
* " 393	Zitsunnoe Zarskoe	Imperial Citron.
* " 398	Krupneena	Enormous
* " 399	Krimskaja Selonka	Green Crimean.
* " 402	Borsdorfer	Borsdorf.
" 403	Anis Sacharnui	Sweet Anisette.
" 406	Pipka Sacharnaja	Saccharine Pipka.
* " 407	Tschernoedrewo	Blackwood.
* " 408	General Greig	General Greig.
" 409	S. Wochinskoe	Wochin's apple.
* " 410	Repka Malenka	Little Seeding.
* " 413	Skrischapfel	Cross apple.
" 424	Bergamottnoe	Bergamotte.
" 425	Anis Rospisni	Pointed Anisette.
* " 426	Swinez	Apple "Lead."
* " 427	Anisimowskoe	Anissim's apple.
* " 429	Bosklonowka	Bosklonoff's apple.
" 430	Arkad Kruglu Woskowoi	Round Waxen Arcade.
* " 433	Orlowskoe	Orloff.
* " 437	Sachoiswan	Saxonian.
" 438	Rospisnoe	Pointed.
* " 439	Krimskaja Beel	White Krim.
* " 441	Grimuschka	Rattling apple.
* " 442	Kalville Scholti	Yellow Calville.
* " 444	Reinette Liubski	Lubsk (name of a place) Queen.
* " 445	Romanika	Red-cheeked apple.
* " 447	Ranette Kiluski	Queen of Kiev.
* " 448	Kardinal	Cardinal.
" 450	Beel Krasawiza	Handsome White.
* " 451	Warschtapel	Warsztappel.
* " 453	Arkad Krasiwui	Beautiful Arcade.
* " 455	Riabinonka	Berry apple.
* " 457	Klinevskoe	Klineff's apple.
* " 458	Scholtinaliw	Yellow Juice.
" 461	Rebristoc	Strong-ribbed.
* " 462	Rubez Selonniu	Green Cut.
* " 463	Pipka Postillnaja	Spreading Pipka.

No.	RUSSIAN NAMES.	TRANSLATION.
* A 466	Repka Kislaja	Sour Turnip.
* " 467	Miron Ploskui	Flattened Barbel.
" 468	Beel Rospisnaja	Pointed White.
* " 469	Babuschkino.	Grandmother's apple.
" 470	Lapouchoe	Burr apple.
" 471	Anisowaja Plodowitka	Prolific Anisette.
* " 472	Ostrekowskaja Steklianka	Ostrekoff's Glass.
" 475	Postichouka	Holdfast.
* " 476	Arkad, Rother	Red Arcade.
* " 477	Roschdestwenskoe	Christ Birth apple.
" 478	Tonkowetka Polosataja	Thin Twig Streaked.
* " 481	Mzenskoe	Mzensk apple.
* " 490	Glinzowoe	Clay apple.
* " 502	Russische Rambour ReINETTE ...	Russian Rambour Queen.
* " 544	Lapouchoe Naliw	Juicy Burr apple.
" 548	Borowinka Lugouaja	Meadows Mushroom.
* " 551	Arbusowskoe	Water-melon apple.
* " 555	Krass Sladkaja	Red Sweeting.
" 557	Revelskaja Polosatoc	Streaked Revel.
" 558	Konitschenewoe Rannoe	Early Cinnamon.
* " 563	Krimskoo Naliwnoe	Juicy Krimtarter.
* " 565	Wergunoks.	Worgunok.
" 566	Krupnui Skworminaliw	Large Sub-acid.
* " 568	Melonenapfel	Melon apple.
" 569	Rosenhager	Slender Rose.
" 575	Alabaster, Weisser	Alabaster White.
* " 578	Boredorfer Leipziger	Leipzig Borsdorf.
* " 579	— Tierlandischer Sommer ...	Summer Lowland.
* " 580	— Tierlandischer Winter	Winter Lowland.
* " 584	Erdbeerapfel	Red Calville.
* " 585	Zusows Winterapfel	Zusoff's Winter apple.
* " 587	Englischer Pepping	English Pippin.
* " 592	Arkad Dlimui	Long Arcade.
" 595	Mzenskoe Sladkoe	Mzensk Sweet.
* " 597	Pesolschnaja Steklianka	Glassy Sand apple.
* " 599	Romenskoe	Omensk (name of a place.)
* " 600	Dlimoe	Long apple.
* " 864	Arkad Dri mtschataja	Smoky Arcade.
* " 874	Borowinka Sladkaja	Sweet Mushroom.
" 962	Reimette Muscateller	Queen Muscatel.
" 963	Muscateller Tievlander	Lowland Muscatel.
" 964	Herbst Streifling	Autumn Streaked.
* " 965	Gruscheffka Sladkaja	Sweet Pear apple.
* " 966	Tuchernokrasnoe	Red-black.
" 967	Sclonnoe	Greening.
" 968	Saburonskoe	Aloe appel.
" 969	Zantarnoe	Zantar apple.
* " 970	Tuhuginka Selomaja	Green Citron.
* " 971	Wassilli Welikui	Vasilis Largest.
" 972	Trechtrshomnoc	Overflowing.
* " 973	Steklianno Duschisstoe	Shining Aromatic.
" 974	Rasumowski Noschok	Razumoffsky's Downy.
* " 975	Tetneksrasnoe	Red Teat.

No.	RUSSIAN NAMES.	TRANSLATION.
A 976	Tipka	Linden apple.
" 977	Tuhutilotschnoe	Aromatic.
* " 978	Beel Solotofskaja	Golden White.
" 979	Beel Krupnaja Prodolgouataja..	Large Long White.
" 980	Beel Plikano Uskaja	Plikanoff Small.
* " 981	Beelowoe Scholto Seroe.....	White Russet.
" 982	Skrut Beelowoi	Round White.
* " 983	Aetrachanskoe Skwasnoe.....	Red Astrachan.
* " 984	Anis Kurski	Koursk's (a name of a place)
		Anisette.
* " 985	Anis Krasnui.....	Red Anisette.
" 986	Anis Selanui	Green Anisette.
* " 987	Anis Schaltui	Yellow Anisette.
* " 988	Ananasnoe	Pine apple.

ON THE RUSSIAN APPLES

Imported by the U. S. Department of Agriculture in 1870.

BY CHARLES GIBB, ABBOTTSFORD, QUEBEC.

of a place)

My object in writing the following pages is to note, as far as I can, the opinions of those who have fruited these apples on this continent, and also to give the opinion of Dr. Edward Regel, Director of the Imperial Botanic Gardens at St. Petersburg, from whom these apples were received.

My endeavour is to cause this matter to be thoroughly looked into, so that, in spite of all drawbacks, we may soon know which are the really valuable apples in this large collection.

The confusion in Russian nomenclature has been a great drawback to the introduction of the Russian apples into this country. In the Department catalogue we find duplicates under different names, confusion of names as to types and families, evident mistakes.

In Dr. Regel's work on Russian Pomology, the lists of synonyms show how confused is nomenclature in Russia. Aport, which is of the Kaiser Alexander Family, is noted as a synonym of Antonovka; Titovka of Aport, Red Calville of Titovka, Titovka of Steklianka, Anisovka of Borovinka. Truly if Spitzenburg and Northern Spy were synonyms of Golden Russet the case would be somewhat parallel.

Unfortunately in the Department list, the name is, too often, no guarantee to the nature of the fruit. Of the two apples named Red Astrachan, the first is Duchess, or very like it; the other is a mistranslation, and not intended for it. Apples whose names state them to be of Greening, Anis or Blue Permain type, prove to be Duchess; Aports do not prove to be of Alexander family; Stekliankas the very opposite of Greenings. Apples marked Beel or Belui are far from white, and others noted as red, show no trace of it. Those marked winter, if from the northern parts of the coast provinces, where the summer is short and cool, are by no means winter apples in our longer and warmer summers.

The early ripening of these apples on the Department grounds at Washington, gave many the idea that they were all summer apples, that is summer irrespective of the climate they are grown in. Prof. Budd, of Ames, Iowa, in 1876, on 20th Augnst, noted Borsdorf, No. 341, in the Department Grounds, as "falling from the tree and about ready for use," while he quotes an authority from Northern Vermont, saying, "a long-keeping apple of finest quality." Again, Red Queen, No. 316, Mr. Budd notes as "a rusty, green apple about mature 20th of August, and falling from the tree." Mr. A. G. Tuttle, Baraboo, Wis., says: "Fruit of good size, red on the sunny side, season, January to April." It may thus be seen that the Department test was no test at all as regards the quality and keeping of these fruits, nor were they so intended by the Department who used their grounds merely for the purpose of growing for distribution. These trees, as received by the Department, were labelled by number; they were also sent out by number. Some mistakes are observable and mistakes will happen when things are received and sent out by number; but the numbering as sent out by the Department, I am told, was unmistakably plain. These numbers referred to a list in Russian which was translated at the Russian Embassy in Washington, and distributed by the Department. Unfortunately, the Russian names are rendered into English sounds from a Russian, not an English, standpoint. These names should be rendered *euphonicly* from an English point of view. Thus "ow" and "ou" are intended to be pronounced "ov" or "off," also "ja" should be pronounced "ya." The Russian language is as musical as Italian, and when these names are properly rendered into English sounds, it will divest them of half their difficulty.

We also should have uniformity in the spelling of the Russian names. We find naliw, naliv, nalin, naleiv, naliwnoe, and even wali-sonoe, for the word translated juicy or transparent. We find scholti, schotoi, schaltui, scholtoe, for the word yellow.

We find schlenka, sclenka, selonka, sclonnoe, selennoe, sclonnui, for the words green and greening. Of course this is in part the work of the printer. We find Rannet Kiluski, Queen of Kiew, or Kiev, as we would say, but who would suspect Kiluski of being Kievski. Any number of such mistakes.

The translation also is badly done. In 399 Krimskaja is translated Crimean, in 439 Krim, and in 563 Krimtarter, and these mistakes have been puzzled over and copied by every one who has grown them.

The translation of the German names is still more faulty. Aport Herbst (355) is translated Autumn Orange, but Aport does not mean Orange; Erdbeerapfel, which means Strawberry Apple, is translated Red Calville; Suislepper is translated into the English (?) word Switzer; Buschbon, which is probably Buschbohn, dwarf bean, is translated Buschbon. The Department catalogue should certainly be revised.

There is also another drawback. In the North scions have been usually top-grafted on crabs. Growers in Vermont, Wisconsin, and Minnesota are now agreed that the crab stock is uncongenial to the Russian apple. The experience of Mr. Tuttle will illustrate this. Of 127 Tetofsky, top-grafted on Transcendent, after ten year's growth, but one living; on Yellow Crab, two trees alive out of 74, the Tetofsky having made a growth, before dying, of six to eight feet; of 57 on apple, root grafted, all alive and doing well. Mr. Sias, of Rochester, Minn., and Mr. Webster, of South Northfield, Vt., often speak of fruit, medium in size, top worked on crab, larger on apple. It is to be regretted that our first impressions of the Russian apple were either from specimens grown in the climate of Washington, or else from top grafts on crab at the north.

It was in 1860 that Dr. Regel began his Pomological work at St. Petersburg, a work which he followed up with the same energy that had characterized his botanical labors. He began by studying the apples growing in his neighborhood; exhibitions also were held at St. Petersburg in 1860, 1861, 1862 and 1863. The apples exhibited were from different parts of the Province of St. Petersburg, also from Riga, Novgorod, Pskov, Valaam, Tver, Moscow, Tula and Tchernigov; also from Dr. Lucas, of Wurtemberg.

Dr. Regel wrote his *Russkaya Pomologaya* in 1868. In this work he gives a full, minute description of 225 varieties of apples, nearly all of Russian origin; a woodcut is given of each variety, also beautiful colored plates of about 144 of them. The descriptions of these apples were, for the most part, taken from the samples exhibited at St. Petersburg; and here, partially hidden under cover, as foundation-stones are apt to be, is one of the best parts of Dr. Regel's work—the naming of these fruits and the noting of their synonyms. For instance, the Borovinka he traces to its probable origin, but states it to be the same as the Anisovka of Mr. Heidorn, the Plodovitka of the Valaam Monastery, the Boloska of Mr. Atriganiev, etc., etc.

Dr. Regel also gives a supplemental list of about 181 Russian varieties. These he received in part from the places I have mentioned above, also from Voronesh, Penza, Riazan, Vladimir, Saratof, Sarepta, Astrachan, Revel and other places. The varieties in this list are not *described*, only in a few instances is the quality of the fruit spoken of. The place from where received, and their behavior in nursery up to date is usually noted.

There is also a list of 296 foreign varieties received from Germany, Sweden, and from the Royal Horticultural Society in London, including many American varieties; these are noted mainly to show their hardiness in nursery, and especially how they stood the severe winter of 1866-67.

Of the 252 varieties received by the Department from Dr. Regel about 120 are fully described, about eighty-two are but briefly noted, or perhaps mentioned only as to their behaviour in nursery, three are duplicates, about six appear only as synonyms in Dr. Regel's book, and about thirty-eight I have not been able to find, although some of them are no doubt noted or described.

With these facts before us, we can see Dr. Regel's estimate of the value of the collection he sent us.

Dr. Regel speaks of his Pomology as a *report* rather than a book—a something to build upon and add to year by year. He calls it the first Russian Pomology, as being the first systematic work on the subject; yet draws attention to the book published by Nicolai Krasno Glazov in 1848, in which seventy-three varieties of apples are briefly described, and also to other authors.

Dr. Regel speaks of the winters of 1861-62, 1862-63, 1864-65 and 1866-67 as trying winters, and especially the last, when the thermometer went down to 42° below zero, Fahr. The temperature seldom falls below 35½° below zero Fahr. at St. Petersburg. "Seven years' nursery experience, with a variety," says Dr. Regel, "is not enough to test its hardiness." He also draws attention to the fact that many varieties that he has, he has not yet fruited, and that he may, therefore, have the same apple growing under different names in his nursery.

This Russian Pomology is full of facts of interest to us. Dr. Regel assumes nothing—what he does know, and what he does not know, are stated so fairly. His work is grand, good, fundamental work; but it was not followed up, as it should have been, by a national convention of fruit-growers and a national exhibition of fruits. On

the other hand, the fickle climate of St. Petersburg proved a severe test to many of the varieties Dr. Regel had gathered for trial in his nurseries. He ceased to experiment so largely and selected a smaller list as those best suited to the needs of his own climate, and henceforth gave but little thought to apples, but devoted his vigorous energies to gathering from the colder parts of Asia, those numberless botanic rarities which have made the St. Petersburg Imperial Gardens so interesting to men of the north.

It will be observed that when Dr. Regel describes the apples grown in the Province of St. Petersburg, he usually under-rates their size; he entirely under-rates their color, and altogether over-rates their keeping qualities. Even the Early Transparents keep till December. Such is the effect of the cool, short summers in that high latitude. This does not apply to samples grown in other parts of Russia.

My information in the following list is based upon visits in August last to the orchards of Mr. Spaulding (formerly that of Mr. Moulton), near Minneapolis; A. W. Sias, Rochester, Minn.; J. M. Underwood, Lake City, Minn.; A. G. Tuttle, Baraboo, Wis.; State Agricultural College, Ames, Iowa; Ellwanger & Barry, Rochester, N.Y. Also Mr. A. Webster, of South Northfield, Vt., and Dr. Hoskins, of Newport, Vt., brought to the Montreal Horticultural Society Exhibition samples of their Russian fruits, and gave me every opportunity of getting information from them. Mr. Webster, in a paper published in the Montreal Horticultural Society's report for 1881 described thirty-eight varieties of these apples which he had fruited—by far the most important article upon this subject that had appeared. Mr. Wm. Saunders, of the Department of Agriculture, also very kindly loaned me brief notes and tracings he had taken. The Washington climate, however, is so different from the climates these trees were intended to be grown in, that I shall seldom quote from these notes. I have also valuable information from Oliver Gibbs, Secretary of the Minnesota Horticultural Society, Lake City, Minn., also from C. Perry, of Beaver Dam, Wis., and others.

Prof. Budd is not able to help in this matter as one might expect, as the State Agricultural College at Ames, Iowa, received their own importation from Dr. Regel; but as Russian apples have been, or are being, received by the college from twelve different sources in Europe, much valuable light will be thrown upon the matter.

CATALOGUE.

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(1) ASTRACHANER ROTHER—*Red Astrachan*.

If not Duchess, so like it as to be hardly distinguishable from it.—
Spaulding.

Dr. Regel received this from Dr. Lucas, the eminent pomologist, of Reutlingen, Wurtemberg, where it is said to be a very popular summer apple. It is believed by Dr. Lucas to have come from Russia. Dr. Regel says that until it fruits he will be unable to decide whether it is one of the Russian apples known to him. It proved quite hardy at St. Petersburg, and did not suffer even during the very severe winter of 1866-67.

(15) SUSSAPFEL VON TŒNARIUS—*Von Tenarius, Sweet*.

A beautiful sweet apple, which grows plentifully in the Imperial Gardens at St. Petersburg. It is not described by Dr. Regel.

(44) ASTRACHANER WEISSER—*White Astrachan*.

Dr. Regel received trees of this from Revel from Mr. Detrich. The trees, however, proved sensitive to the cold of winter. They were injured each year, and at length died. Trees grown at St. Petersburg stood better; in fact, proved even fairly hardy—stood even the test of 1866-67. This White Astrachan Dr. Regel believes to be a Russian apple. Anerot thinks it is the same as the White Naliv, which is grown in other countries under synonyms, but this is not proved. Phlotov gives as Russian synonyms, Naliv and Fonarik.

54) LUIKENAPFEL—*Luiken Apple*.

Dr. Regel says that he received this from Dr. Lucas, of Reutlingen, in Wurtemberg, where it is a popular fruit for dessert and home use. Dr. Lucas recommended it for dry soils. Dr. Regel tried it on such soils, but it was injured during the severer winters, and most, if not all, of his trees were killed.

(60) ANASAPFEL ROTHER—*Red Duck*.

Of the Yellow Transparent family. A large, oblong conic, greenish-yellow apple, much like Yellow Transparent; skin rougher than Yellow Transparent, and not as yellow, says Mr. Tuttle. Mr. Webster finds it a little better in quality than Charlottenthaler, but smaller in size, and therefore not equal for market. At Mr. Underwood's, it agreed exactly with Mr. Tuttle's description.

Dr. Regel does not mention the Anasapfel Rother. Both the name and translation of this are puzzling. The *Anasapfel Rother* Dr. Regel received from Gottha, in Germany, and speaks of it as perhaps the same as the Prinzenapfel; a good-sized pale yellow apple, with perhaps a faint mottling of red on one side. This apple, however, was killed in 1866-67, whereas young trees of Anasapfel Rother were not injured. Dr. Regel therefore thinks they may be different varieties.

(61) EDLER ROSENSTREIFLING—*Noble Redstreak.*

Dr. Regel speaks of this as growing in his own garden at St. Petersburg. It is a medium-sized apple, roundish, very slightly flattened; stalk very long, and remarkably stout; yellow, mostly covered with red in splashes and stripes. Flesh, greenish-white, tender, sweet, like honey, with an after taste like honey. Good for table and home use. In season from September to November. Young trees stood well during the severe winters of 1861-62 and in 1862-63.

(68) CHAMPAGNER FRUHER—*Early Champagne.*

A small early conic apple, colored like a Duchess; a sharp acid with slight flavor. I saw this both at Mr. Tuttle's and Mr. Spaulding's, but am not sure if the same fruit or not.

Mr. Sias says, "this is the earliest apple we know, an early and abundant bearer; rather tart, but an excellent pie apple. It is striped with red, beautiful in shape, and very hardy." Mr. Sias has had it bear the same season that he had grafted it on the Palmer's Sweet Crab. It makes a good union with that stock. Mr. Saunders speaks of it on the Department grounds as a promising early fruit; small in size, but very pretty, and would make a fine cooking apple. Ripe enough to test on 24th of June.

(69) SOMMER BIRNAPFEL—*Summer Pear.*

A white apple, rather small, very conic, with wrinkled basin.—*Sias.*

It seems not the same as Pear Apple, No. 267.

(105) GRAFENSTEINER RUSSISCHER—*Russian Gravenstein.*

Dr. Regel mentions this as growing in the Baltic Provinces, in Finland and at Pskov. A roundish, rather irregular apple, strongly ribbed. It is above medium in size, and in color a yellowish green, afterwards yellow, two-thirds of the apple often being covered with red stripes. Flesh, white, tender, vinous sub-acid and agreeable. An excellent table apple, which ripens in September and keeps long into winter; in a light room, however, it does not keep later than the 1st of December. Dr. Regel says that the tree grows to a large size, and bears a large amount of fruit. The fruit is sent to St. Petersburg from Germany in great quantity, and sells at high prices

as a dessert apple. The woodcut and colored plate given by Dr. Regel are from specimens grown in Russia.

(122) BORSBORFER REVALER—*Borsdorf Revel*.

Dr. Regel mentions this as growing in the Baltic Provinces. Neither the young or old trees had suffered during any of their severe winters.

(153) SKVOASNOI NALIN—*Transparent Juicy*.

The Skvosnoi Naliv, Dr. Regel describes as one of the most popular kinds of apples. It is grown in the northern part of the Province of St. Petersburg and in the provinces to the south of Moscow. This and the White Naliv constitute the larger part of the apples to be seen in the Province of St. Petersburg. This true Russian apple, on account of its good quality, heavy bearing, transparency and beauty, has become widely popular.

Transparent (nalivnoe) apples are beautiful dessert fruits. This apple sells at high prices, ripens in September, and must be used at once. When the fruit is opaque it may be kept till December, but if not conserved very carefully it will rot in September and October. Dr. Regel notes as synonyms of this apple, the White Astrachan (of Lucas and Oberdick), and the Pos-sart's Moskauer Nalivia (of Lucas and Oberdick.) This apple, however, is not at all of White Astrachan type.

The Belui Skvosnoi Naliv, Dr. Regel describes from samples received from Nijni Novgorod, and the Provinces of Moscow and Vladimir, and the South. He says he thinks it is often mixed with Naliv Belui.

(157) BELUI NALIN—*Juicy White*.

"A white fruit of good size; acid, but milder when fully ripe," says Mr. Tuttle.

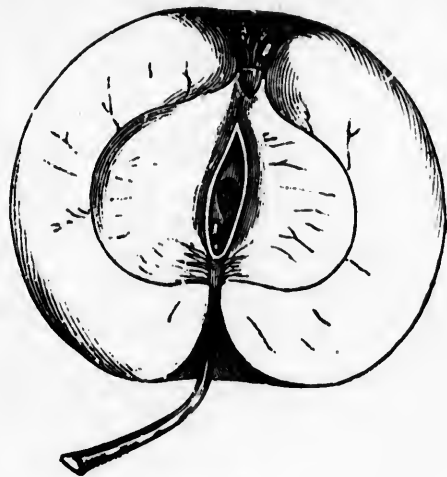
Dr. Regel says the Belui Naliv is one of the most valuable of Russian apples, because it grows even in the northern part of the Province of St. Petersburg, even at the Valaam Monastery, near the northern end of Lake Ladoga, and in some parts of Finland. It takes first place before all others, just as does Skvosnoi Naliv, which is about as popular. It stands our severest winters at St. Petersburg, and bears every year, or at any rate every second year, heavily. It grows without any care, grows in neglected gardens, and is the earliest green apple in our markets.

Ordinary samples are a little below medium in size, good specimens a good deal above it, and quite yellow when ripe. Season, August till December.

(159) LIMONOE—*Lemon Apple*.

Dr. Regel says, this is grown from St. Petersburg to Moscow. It is a small, roundish, or roundish-oblong apple, with a long stalk; yellow with a few splashes of red; tender, agreeably vinous acid, with a very slight astrin-

gent after taste. A summer apple, which ripens about the end of August. Good for table or kitchen. The tree is large and spreading, and endures the severest winters at St. Petersburg, and bears heavily every second year. Dr. Regel cannot say, positively, if this be the Limonnoe of Krasnoglazov of Moscow.



LONGFIELD.

(161) LANGERFELDSKOE—*Longfield*.

An early winter fruit of fine quality and bright attractive color. As pointed out by Mr. Webster, it is the same as No. 587, English Pippin. Mr. Budd was told at the nursery of Mr. C. H. Wagner, at Riga, that this apple was a seedling grown by an Englishman on the Volga, and that it was sometimes known as the English Pippin, and sometimes as Longfield—the latter name supposed to have come from the shape of the field the tree was growing in. Mr. Budd received it both from Moscow and St. Petersburg, and I think he has that of the Department List under both numbers. His are all alike and true to name. It therefore seems to be one of those apples which is apt to come true to name from different sources. Mr. Tuttle says it is as good a bearer as Duchess, and thinks the finding of this is worth all the labor and expense he has had of testing so many Russian varieties. The flesh is white and fine-grained; the skin bright yellow and bright pink. Mr. Tuttle says it would be safe to plant a thousand trees of it. Its fault is its small size, a fault increased by the top-grafting on crabs;

but those who are growing it on apple roots in rich prairie soils in the West do not seem to grumble at its smallness in size.

Mr. C. Perry, of Beaver Dam, Wis., says :—Very similar to Good Peasant (see No. 387) both in tree and fruit. Longfield, however, averages a trifle larger and is two to four weeks later in ripening. Quality, fair ; season, December. Tree hardy and a prodigious bearer, and seems likely to prove a most valuable cider apple for the Northwest.

Dr. Regel says :—The Langerfeldskoe, as far as we know, has been grown only in the garden of Mr. Langerfeld, at the German colony of Sarepta, on the Volga, half-way between Saratov and Astrachan. It is a lemon-colored apple, red on the sunny side, with white, tender, juicy flesh. Neither the cold, nor the winds, nor the storms of the intensely steppe climate of Sarepta have disturbed the growth of this tree. Of 100 different varieties growing in the garden of Mr. Langerfeld, only this one bears fruit every year.

Let us bear in mind that Sarepta has not a high northern climate.

(162) **BUSCHBON**—*Buschbon*.

Mr. Saunders, of the Department of Agriculture at Washington, says :—A very good summer fruit, somewhat aromatic in flavor ; ripe from June 22nd.

Dr. Regel mentions this only as a synonym of Popovka Polosataya, No. 247.

(164) **POLOSATOE HEIDORNS**—*Heidorn's Streaked*.

A very beautiful, large-sized striped apple, sweet and of delicate texture, but short in season. Such were the specimens brought to the Montreal Horticultural Society's Exhibition last September. Mr. Webster finds the fruit large and fine, even when grafted on crab. The tree, Mr. Webster says, is of slow growth and a moderate bearer.

Dr. Regel speaks of this as being one of the apples exhibited at St Petersburg in 1866. It is named after Calvin Heidorn, gardener of Baron Tiesenhausen at Yamburg, eighty-six miles southwest of St. Petersburg. A medium-sized, roundish apple, dull yellow, mostly covered with dull red in splashes. Flesh white, soft, juicy and very sweet. The tree grows to a large size and has a great many branches. It bears a large amount of fruit every second year, and stands well the climate of St. Petersburg. It ripens in September, but begins to rot at the core soon after ripening, yet may sometimes be kept till November or December.

(166) **APORT LETNY**—*Summer O'Porto*.

"A large, flattened, angular, brown-cheeked apple of fair quality—September. It has no Aport or Alexander likeness," says Mr. Webster.

Dr. Regel speaks of this as a fruit, samples of which he received from the Provinces of Moscow and Tchernigov. It seems to have been named by Mr. Atriganiev. It is at first a greenish-yellow, and becomes later a beautiful yellow, like wax, with dots. The flesh is tender, juicy, agreeable and mildly acid. A nice early table apple from September to December. It is different from the Skvosnoi Naliv, being larger in size and more yellow in color. It endures well their cold winters. The colored picture in Dr. Regel's book is a somewhat ribbed apple, a good deal like Charlottenthaler.

(167) SCHOLTOE SLADKOE—*Yellow Sweet.*

Mr. Tuttle says:—Fruit medium to large; earlier than Yellow Transparent.

Dr. Regel speaks of this as grown in the Province of St. Petersburg and southwards, and says it is very like the Yellow Arcade. Judging from the woodcut and the colored plate, it would seem to be somewhat larger and a better looking fruit. It seems to be a yellowish apple, with some red on the sunny side; flesh firm and agreeably sweet; good for dessert, but better suited for cooking. The tree is quite hardy, but not productive. In season from November till December.

(170) REVELSKOE—*Revel.*

Dr. Regel notes several places where this has been grown, at or near St. Petersburg. A pale yellow apple with some red on the sunny side. Flesh pure white, firm, agreeably sour, with an aftertaste like almonds. A good table apple from September till late winter, but seems to lack size.

(174) PIPKA MALAJA—*Little Pipka.*

Mr. Sias says:—Below medium in size; fine in grain and flavor; a delicious, very small sweet apple.

(176) KRASNABAKOE—*Red-sided.*

Dr. Regel speaks of this as growing in the Provinces of St. Petersburg and Novgorod. It is a small greenish apple with red side; sometimes the sunny side is blushed with dark blood-red. The flesh is sometimes stained with red; tender, juicy, and agreeably sub-acid. A good early summer apple, which ripens on the tree about the end of August and keeps till November. It is very nice either for table or cooking. The tree is small, and yields a good supply of fruit every second year. It endures the worst winters at St. Petersburg, and is well worth growing.

(177) SCHLENKA POLO&STAJA—*Green Streaked.*

Mr. Tuttle speaks very highly of this as a very large apple, sometimes of the largest size, striped with red, a little coarse in texture, but a showy, saleable, market fruit, that keeps into winter. Its name may, perhaps, have been given to it from green veinings in the flesh.

It seems to belong to the same family as Turnipy Juicy, Zolotoreff and Vassilis Largest, and, like them, shows some tendency to blight in nursery.

Mr. Perry says :—A large showy, oblong, red-striped apple of good quality ; September. The tree is an early bearer, but has blighted for seven consecutive years.

(178) BARLOWSKOE—*Barloff*.

An apple of distinct Alexander features, as I saw it in Mr. Tuttle's orchard, showing near relationship in its size, form and color. It is a sweet apple of fair quality, ripe at the beginning of September. Perhaps it may be the Sweet Aport which I saw at Orel, in Russia. That grown by Mr. Webster, however, is a flat, sub-acid, thin-flavored fruit, and in shape more like Zolotoreff and Turnipy Juicy, and not of special merit.

Dr. Regel says, that the only tree he knows of, is in the Imperial Gardens at St. Petersburg, and seems to have been named after a gardener. A large apple of Alexander type, green, with a good deal of dark red. Flesh white and agreeably vinous-sweet; an excellent autumn apple, which ripens in September and keeps till December. The Barloff grown by Mr. Tuttle is evidently true to name.

(180) NEJOLOWSKOE—*Negoloff*.

"An October fruit of good size and fair quality, but not of special value. Tree of Duchess growth," says Mr. Webster.

(181) PIPKA CHAMPANSKAJA—*Champagne Pipka*.

Dr. Regel describes this from samples from different parts of the Province of St. Petersburg, from Pskov and other places. A small, or perhaps medium-sized, greenish-yellow apple, with some red on the sunny side. The flesh is white, under the skin reddish; a very agreeable vinous-sweet. The tree is large and spreading, bears well every second year, and does well in the climate of St. Petersburg. The fruit is good for dessert or home use, and keeps through the winter.

(182) KALVILLE KWASNUILETNY—*Red Summer Calville*.

Dr. Hoskins has a Red Summer Calville, perhaps that of the Department. He received it from James A. Nelson, Indian River, Mercer County, Pa. Mr. Nelson speaks of it as a fine, early dessert apple, and the only Russian he has found to be of any value.

The Krasnui Simnui Calville, which I saw in the grounds of Ellwanger & Barry last summer, as far as I can remember, is very like

the colored plate and description of Dr. Regel. Although in name winter (Simnui), it ripened in August.

Dr. Regel states that there are many of these Calvilles, German, Polish and Russian, but he describes the variety which has been grown in the Province of St. Petersburg, and no specimen of it appeared in the collections sent from Moscow and the South Provinces. It is an apple about medium in size, pretty well covered with red. The flesh is white, near the skin a little red, very tender, a highly agreeable vinous acid. It ripens the end of August and beginning of September, and keeps till November or December. On dry soil the tree suffers in severe winters, and yet is stated to be one of the best, if not "the" best, summer apple for the St. Petersburg climate.

Dr. Regel, in his appended list of foreign varieties, mentions having received the Red Summer Calville from Gotha, and queries whether it may not be the same as that grown about St. Petersburg. They both suffer at St. Petersburg during severe winters. The beautiful Calville Rother Winter received from Wagner, of Riga, was injured more or less each winter, and finally died.

(183) BURLOWKA—*Burloffka*.

Dr. Regel says this apple is grown in the Provinces of St. Petersburg and Vladimir. A flattish apple of full medium size, yellowish-green, reddish-yellow on the sunny side. It is sweet and good for cooking. It ripens in September and does not keep long. The tree stands the cold winters at St. Petersburg.

(184) ARABSKOE—*Arabian*.

There is some mistake here. Both Mr. Budd and Mr. Tuttle have fruited the apple, and it appears to be a Duchess or an apple very closely resembling it. The Arabskoe of Ellwanger & Barry is a large, flattish fruit, of deep pink color, very beautiful, though only of fair quality, and not a long keeper like the Arabskoe we saw at Volsk. This was received from Moscow, and yet hardly agrees with the description given to me by Mr. Shroeder, at Moscow, as a flat conic, hard winter apple. However, No. 315 (Lord's apple) is a true Arabskoe.

Dr. Regel speaks of the Arabskoe as being grown at St. Petersburg and in the provinces to the south of Moscow. When on the tree the apple is green, afterwards a yellow green, and on the sunny side a peculiar shade of dark, dingy red, covering one-third or half of the apple. The flesh is white, hard and sour, and when ripe, somewhat tender and agreeably sour. The tree is hardy at St. Petersburg, only young trees being injured there. The tree is large, and bears a medium amount of fruit, which ripens in October and keeps till spring or next fall. It is recommended as one of the best winter apples.

Dr. Regel also received samples from Astrachan and from another place.

The woodcut given by Dr. Regel is from a specimen of St. Petersburg growth, and, from its conic, almost Gilliflower shape, is quite unrecognizable as an *Arabskoe*. Dr. Regel's colored print is from a specimen from Astrachan, and is more like those we saw in Russia. Dr. Regel believes these to be the same, only modified by climate.

The *Arabskoe Polosatoe*, known to Dr. Regel only from sample from Riazan, southeast of Moscow, is described as a yellowish-green kitchen apple, with a dark carmine-red side; an agreeable vinous acid. In season from November till the end of winter.

(185) ANISOWKA—*Anisette*.

Mr. Tuttle says this is Duchess. (There is some mistake here.)

The Anisovka seems to be the best variety of the Anis with which Dr. Regel is acquainted. It is grown in the Provinces of St. Petersburg and Moscow, and southward from these points. It has also been grown at the Convent of Valaam. He says that the trees have stood the worst winters at St. Petersburg, and bear heavily every second year. It is very popular and commands high prices, as it is good either for dessert or cooking. It is at its perfection at the end of September, and may be kept till February or even March.

(186) STEKLIANKA REVELS KAJA—*Glass Revel*.

Dr. Regel says this has been grown at St. Petersburg and other places in that neighborhood, and also at Pskov. A medium-sized or small apple, somewhat conic, yellow, with some dashes of red on one side. Flesh white, very juicy, and when fully ripe a very agreeable vinous acid. A good table apple from 1st September till January. The tree may be said to be hardy at St. Petersburg, although young trees suffer in severe winters.

(187) STEKLIANKA SELONKA—*Glass Green*.

"Just like Duchess," says Mr. Spaulding and Mr. Tuttle, "in tree and fruit." But stated by both to be later in ripening. Mr. Tuttle also says that the tree is a stronger grower. (There is some mistake here.)

This was brought by Baron Tiesenhausen from Dorpat, says Dr. Regel. An apple of scarcely medium size— $1\frac{3}{4}$ to $2\frac{1}{4}$ diam or inches in depth and $\frac{3}{4}$ of an inch more across. It is green or yellowish-green, with some red on the sunny side. Flesh greenish-white, firm, afterwards tender; acid. The tree bears a good crop every second year. A cooking apple, which ripens in October and keeps all winter. Baron Tiesenhausen says that only young trees have suffered, and that only during extreme winters.

Mr. Charles Patten, of Charles City, Iowa, received this along with others, not from the Department, but directly from Dr. Regel. Mr. Patten says:—Tree like Duchess and a good grower. The apple is of the same size and general appearance as Duchess, but not quite as

acid nor as good. Whatever mistake there may be here, is clearly trans-Atlantic.

(188) ARKAD SCHOLTI—*Yellow Arcadian*.

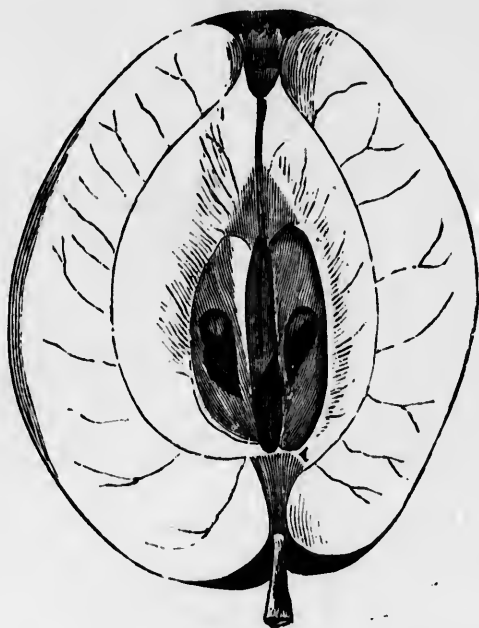
No. 327 in the catalogue bears the same name, and No. 231 the same translation. The Arkads in Russia are early sweetish apples, of medium size, valued only for their earliness and hardness of the tree. Mr. Sias has fruited No. 188, and speaks of it as one of the most successful varieties on the Hislop Crab, as far as the tree is concerned. Fruit nearly white, and glossy, roundish, of full medium size, second rate in quality, a shy bearer. Others who have fruited Yellow Arcadian do not know under which number they obtained it.

Dr. Regel speaks of this as growing about St. Petersburg and the Baltic Provinces. It is medium or below medium; yellow, with perhaps a little red on the sunny side; tender, sweet, with a slightly bitter aftertaste. Good for cooking, though some people like it raw. Noted for its great productiveness, and its power to withstand cold winters. Season, September to January.

(190) TIESENHAUSENSKOE—*Tiesenhausen*.

Mr. Tuttle says that this, in form and color, is like Ben Davis, that it is of good quality, and the best keeper of all the Russians fruited with him. Tree a fine grower and very hardy.

Dr. Regel speaks of this, as a fruit, introduced by Baron Tiesenhausen into the Province of St. Petersburg, whither it was sent for exhibition in 1860 and in 1866. The Baron seems to have received it from Dorpat, but Dr. Regel queries whether it is known in the coast Provinces, and names it after the gentleman who brought it into notice. It is a yellow apple, with scarcely a tinge of red, as grown in the north. Some specimens are oblong conic, others abruptly conic, towards the cavity, as well as towards the basin. The flesh is white, tender, juicy, sub-acid, good for table and home use. It ripens in September, and keeps, says Baron Tiesenhausen, till March. The tree is small, but productive, and suffers only in the severest winters at St. Petersburg.



TIESENHAUSEN.

(196) POLOSATOE SLADKOE—*Streaked Sweet.*

Dr. Regel speaks of this as growing in the gardens at Czarskoe Selo, about fifteen miles west of St. Petersburg. A medium-sized, flat conic apple; greenish yellow or lemon-colored, with a little red on the sunny side. Flesh, white, tender, agreeable, and sweet. A good cooking apple, which ripens in September and keeps till November and December. It stands the winters of St. Petersburg very well, although some of the young trees suffered in 1866-67.

(197) KRIWOSPIZOE—*Curly Spiced.*

An apple somewhat of the Alexander type. Mr. Tuttle says, it has been condemned in the East, but it is an apple of pretty good quality; acid, with some flavor, not bad; but we have too many such apples.

Dr. Regel says—This is an apple which is well known and a good deal thought of about St. Petersburg, and thence towards Moscow and eastwards. It is of medium size, roundish, and slightly conic. When ripe it is a yellowish green, with red dashes. On the sunny side, carmine red dashes on

yellow ground. Flesh, greenish white, firm, juicy; and agreeably vinous acid; if over-ripe, mealy. It is useful for the table, kitchen, and for drying, and deserves to be widely grown, because useful for all purposes. Only the young trees suffer in the severest winters at St. Petersburg. The tree has many branches, and bears lots of fruit each year. Season from September to January.

(198) **POLU MIRON**—*Crossed Barbel*.

Dr. Regel says—This is grown about St. Petersburg and in the Provinces to the south of Moscow. It is an apple of from small to medium size, a yellowish-green in color, with red on one side in splashes and stripes. Farther south it is more highly colored. The flesh is tender and sweet, with a kind of bitter aftertaste, which it loses when fully ripe. The tree is upright, bears plentifully, and does not suffer during cold winters at St. Petersburg. It ripens in the beginning of September, and keeps some months later. Recommended for home use only.

(202) **SAITSCHIA PIPKA**—*Hare Pipka*.

Dr. Regel says—This is grown about St. Petersburg, and, it seems, in the coast Provinces also. An oblong conic apple of medium size, green or greenish-yellow, with some red in splashes. Flesh is white, tender and juicy, and has an agreeable vinous flavor. The tree grows to a large size, and stands the climate of St. Petersburg well. A table apple, that keeps till winter. According to Baron Tiesenhausen, not productive.

(203) **ARKAD**—*Arcade*.

Dr. Regel says—This is grown at St. Petersburg and Moscow. It is below medium in size, light yellow, with perhaps a little red. Firm, very sweet, with nice aftertaste. It ripens the first of September and keeps till December. Tree hardy, but not productive. On account of its good sweet flavor, it is liked for dessert and cooking.

(204) **RUBEZ**—*Cut Apple*.

Dr. Regel says that this is grown in the Provinces of St. Petersburg and Novgorod. A greenish and afterwards a yellow-green apple, with more or less red dashes, which often cover the apple on the sunny side. The flesh is white, vinous acid, with slight aftertaste. A cooking apple, in season from September to January. Tree quite hardy at St. Petersburg. Fruit about medium size.

(205) **KARABOWKA**—*Karaboff*.

Dr. Regel says that this grows from St. Petersburg to the south of Russia; a little green apple, no larger than a crab, with some red on one side. A summer apple, with an agreeable sweet taste. It is one of the earliest, and is very much liked, and hence sells at high prices. The tree stands the coldest winters and bears well.

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(206) ZARSKI SCHIP—*Czar's Thorn.*

Mr. Webster says—An extremely hardy tree, the scions and spurs having a peculiar stiff thorny appearance. Fruit, large, coarse, watery, bitter and worthless. I think there is some mistake here. Mr. Tuttle describes it as sweet apple. Ellwanger & Barry received it from Moscow. They describe it as a large, oblong, sweet apple; skin, red and yellow. If sweet, and nearly all yellow, it is very like that which we saw on the Upper Volga.

Dr. Regel speaks of this as a pale yellow apple with light dots. Flesh, greenish white, tender, juicy, and sweet. It seems to be above medium in size, oblong, and very conic. According to Krasnoglazov, and other apple dealers in Moscow, it often becomes transparent. Young trees suffer in severe winters at St. Petersburg. Dr. Regel thinks it is grown all through the South Provinces, but in small quantities only.

Dr. Regel describes the Moskovskoe Tsarskui Schip as a small or medium sized yellow, conic apple, with yellowish-red side; agreeably sour. September.

The Tsarskui Schip Ploskui is a good sized, roundish, conic apple, from Yamburg and Dorpat. Yellow, all one color; sweet, with a somewhat bitter aftertaste. It bears lots of fruit, but good only for cooking; from September to December.

Dr. Regel does not seem to describe the apple Mr. Budd and I saw upon the Volga.

(207) STUPKA—*Stoupka.*

Dr. Regel speaks of this as growing in the Province of Moscow, also at Yamburg, near St. Petersburg. A small or medium-sized apple, pale yellow or lemon-colored, usually all one color, although it sometimes has a faint blush on the sunny side. Flesh, pure white, sweetish. A good kitchen apple; ripe the end of September, and keeps till January.

(208) KOROLEWSKOE—*Royal.*

Dr. Regel says this is grown in the Provinces of St. Petersburg and Pskov. A pale yellow apple, of full medium size, roundish, or very slightly oblong. Basin, wide, shallow and wrinkled; stalk, long; flesh, tender and sub-acid, and soon becomes mealy, and when mealy it is very apt to burst. In good years it becomes transparent, and then has a vinous sweet taste. It ripens in September and does not keep long. The tree has been injured during each of the severer winters at St. Petersburg.

(210) RUBEZUINOGRADNI—*Cut Wine.*

Size and shape of Maiden's Blush; a sharp acid apple, with some flavor. October.—*Webster.*

This, says Dr. Regel, is grown in the Province of St. Petersburg. It

would seem from the wood-cut in Dr. Regel's book to be an apple of about medium size. When upon the tree, it is green; when ripe, yellowish green, sometimes with a nice red cheek. The flesh is greenish white, tender and agreeable, and sub-acid. A good Autumn table and cooking apple, said by some people to keep till the end of February, but the samples Dr. Regel had rotted in October.

(212) BERKOWSKOE—*Berkoff*.

Fruit much like German Calville, probably the same.—*Tuttle*.—
See 324.

Dr. Regel states that the Borkovskoe came from the village of Noronov, in the Province of Novgorod, whether it had been brought forty years previous from the village of Bork.

A rather large apple, and judging from the plates given, roundish, but somewhat irregular and ribbed. The fruit is yellow, and usually half covered with a blush of bright red, which it maintains even when growing in the shade. The flesh is reddish, tender, juicy, and sweet; useful for kitchen or table. On account of its fine appearance, good quality, and sweet taste, it sells at high prices. It ripens about the 15th of August, and keeps about six months. The tree seems quite hardy, bears heavily for two years, and then takes a year's rest.

(213) STEPANOUKA—*Stepanoff*.

Dr. Regel speaks of this as grown by Mr. Timofiev, in the village of Naronov, Province of Novgorod. A yellowish-green apple, with perhaps a faint blush, and some marbling of red. Flesh, tender, very sweet; good for cooking. It ripens in August and keeps till November. The tree is large, both tall and spreading, and does not suffer during the severest winters. This is a medium-sized apple, roundish, and slightly conic. It is strikingly like 374 Pendent Ear, and was obtained by Dr. Regel from the same orchard.

(214) SADOWSKOE—*Garden*.

A smooth, green, crude, fall apple; sweetish, or very mildly acid; fruit, medium in size and quality.—*Tuttle*.

Dr. Regel says this is grown from St. Petersburg to the country to the south of Moscow. A roundish apple, full medium or largish in size; a pale yellow-green, with just a little red on the sunny side, with a few carmine stripes; flesh, white, tender and sweet. Good for cooking. Ripe in September, and keeps till November and December. The tree is small, spreading, and stands the winters well.

(215) KUSTOE—*Bushy*.

Dr. Regel speaks of the *Kistoe* as growing in the gardens of the Province of St. Petersburg. A rather small-sized, yellowish apple, with some red; a nice looking fruit, but not recommended on account of its lack of quality.

(218) FOKINSKOE—*Fokin's*.

Dr. Regel describes Vochinskoe from samples received from Mr. Vochin, of Pskov. A rather small green apple, with a little red on one side; juicy, and sub-acid; worth growing for dessert or cooking.

(219) BELAJA TEBEDKA—*White Swan*.

"A large good-looking fruit, rather acid on June 28th," says Mr. Saunders, Washington.

(220) SCHOLKOWKA—*Silken Apple*.

A handsome fruit, nearly white, of fair size and good quality; season, September.—*Sias*.

Dr. Regel mentions this as growing in the Province of Moscow, and southward. A small, very conic apple, mostly deep red. Flesh, white, a little reddish under the skin, tender, quite juicy, vinous sweet, with an aftertaste like strawberries. A very fine table-apple, which ripens in August and the beginning of September, and keeps till November and December.

(225) GETMANSKI BOB—*Getman's Bean*.

"Tree," says Mr. Webster, "a slow grower, of peculiar irregular spreading habit, and a tardy bearer. Fruit, large to very large; striped, magnificent, firm, crisp, and of most excellent flavor. Season, October." Mr. Tuttle says, it is one of the best trees, and speaks of the fine size and appearance of the fruit, and its probable market value. The fruit, as I saw it at Mr. Tuttle's, showed the size, angularity, flatness, and conicness of the *Anis*, of the striped or mottled type, but the fruit as I saw it, was below par.

Dr. Regel received this from the Pomological Gardens at Voronesh. Some young trees lived through the severe winter of 1866-67, others did not.

(226) RUBEZ BELUI—*White Cut*.

Dr. Regel mentions this as growing in the Provinces of St. Petersburg and Moscow. A roundish conic apple, of from medium to large size. When fully ripe, a whitish yellow. The flesh is greenish-white, or white, and at first a vinous acid; later it becomes mealy, and sometimes bursts. It ripens in September, and may be kept till mid-winter, but samples kept in a light room rotted in October; good for dessert or cooking.

(228) KRIMSKOE WOCHINA—*Vochin's Crimean*.

Dr. Regel describes this only from samples grown by Mr. Vochin, at Pskov. It is a yellowish-green, and when ripe, waxy yellow, with more or less red on the sunny side. Flesh, pure white, very juicy, a very agreeable vinous acid, with fine aftertaste. One of the best Russian table apples. It ripens the end of September, and keeps till the end of February. Mr.

Vochin had received it as the Krimscoe, and as there are other apples under that name, Dr. Regel named it Vochin's Crimean. Its hardness and productiveness are not stated. Judging from the woodcut and colored plate, it is an apple of full medium size.

(230) TITOUKA—*Titus*.

I do not know of this having been fruited. An apple known as Titovka is grown along the Volga and throughout Middle Russia. We saw it everywhere and in quantity. Mr. Budd described it as the "market woman and car boy apple" of those regions. In Western Russia, however, another apple is known as Titovka.

Ellwanger & Barry received their Titovka from Moscow. They describe it as a large, handsome fruit, resembling twenty ounce, and they say it is the largest and showiest of the new Russian varieties which they have tested thus far. A specimen sent by them to Ames, Iowa, was tested by Mr. Budd and myself. It is strikingly like Zolotoreff, a sample of which I had brought from Mr. Tuttle's, but seemed different in flesh. A sample lately sent by Mr. Goegginger to Mr. W. Evans, of Montreal, would seem to be this same apple, the same I believe as that described and pictured by Dr. Regel in his Pomology.

Dr. Regel says, that this apple originated at the little hamlet of Titov, between Tula and Kaluga, and received very favorable notices from the journals of some of the Moscow societies. He says it is grown from St. Petersburg southwards. Dr. Regel speaks of it as green when on the tree, afterwards as becoming a yellowish-green or lemon color, with some red in the sun, and blood-red in the South.

Dr. Edward Jankowsky, Director of the Pomological Gardens at Warsaw, in his "Sad i ogrod owocowy," says: "In Poland it is known as the Toulski, or apple from Tula." He describes it as large, beautifully yellow, nicely blushed or painted dark red, with large or small stripes; tender and very good. Mr. Budd thinks that the Titovka received from Voronosh is not the same in leaf as that of the Department.

(231) SOLOTOI ARKAD—*Yellow Arcadian*.

Dr. Regel mentions this as growing in the Provinces of St. Petersburg and Riazan. It is a roundish, slightly flattened apple, scarcely medium in size; pale yellow, sometimes with a tinge of orange red, with an agreeable mingling of vinous sweet and acid. Dr. Regel can recommend it for dessert and cooking. It is especially valued for bottling in water. It ripens in September, and in a light room does not keep later than the 15th of October. Baron Tiesenhausen says it keeps till March. The tree is a rapid grower, and was injured only in the very severe winter of 1866-67.

Mr. Saunders sends me a tracing of this taken in the Department Grounds at Washington, which is over $3\frac{1}{2}$ inches wide and 3 inches deep. Mr. Saunders says that it is an apple of good size, deep yellow, striped with red; flavor not high, but a good cooking fruit. This is the Golden, rather than the Yellow Arcadian.

(234) MUSCATELNOE—*Muscatel*.

Dr. Regel says this may often be found in the gardens in the Province of St. Petersburg, also in those about Moscow and beyond. It is a pale yellow apple, the sunny side and often the whole surface being covered with yellowish-red, with some stripes. The flesh is white, sometimes a little red, tender, vinous sweet, with a very agreeable aftertaste like raspberries. A good autumn apple, for dessert or kitchen use; in season from December till January. The tree grows to a large size, and does well in the climate of St. Petersburg.

(236) ANTONOUKA—*Anthony*.

The Antonovka is the king apple of the Russian Steppes, and I hope this apple in the Department list is true to name. That received by Mr. Budd from Moscow, St. Petersburg, Riga and Voronesh, and perhaps elsewhere, all seem true to name, but he has not scions of it from the Department. Mr. Tuttle showed me good healthy trees in an orchard adjoining his own. They were not in bearing, but the fruit borne last year answered my description exactly. The Antonovka of Ellwanger & Barry is true to name, but it was received from Moscow.

Dr. Regel says:—This is one of the most highly prized and widely grown apples in Russia. It grows in the northern part of the Province of St. Petersburg, at Valaam, along the Baltic Sea and in Eastern Russia. Mr. Krasnoglazov states that it was brought from Kursk to Moscow by an uncle of his of the same name, and named after him, but it is known in the Ukraine as Antonovka, and it is necessary to uphold that name. Dr. Regel speaks of it as sub-acid with an agreeable aftertaste, firm and juicy. It ripens in October and keeps till July, and is a delicate dessert fruit. This tree grows so readily in the North, and has such a combination of good points, that many grow scarcely anything else. It is very much liked by the people and brings the highest prices.

(240) TESCHANKA—*Lieby*.

Mr. Oliver Gibbs, of Lake City, Minn., speaks of this as growing in his neighborhood, and closely resembling 378 Hibernial and 472 Ostrekoff's Glass both in tree and fruit. The tree is spreading and irregular in growth, such as nurserymen dislike. Fruit large, rather

flat in shape, tapering toward calyx; color red and streaked. Of these, Lieby is a little the ripest. They are good, sub-acid cooking apples. (There is some confusion here.) Mr. Sias says this is identical with 374 Pendant Ear. Tree hardy, free from blight, of Duchess type and a good annual bearer. It was exhibited at the winter meeting of the Minnesota Horticultural Society, at Minneapolis, by a grower from Carver Co., Minn., but past its season. Pulp loose, coarse in texture and somewhat astringent.

Dr. Regel says that Lejanka is grown in the Provinces of Moscow, Riazan, and Kursk, and elsewhere. Judging from the woodcut and colored plate given, it is an apple of rather large size, and would seem to be somewhat of Alexander form and colored somewhat like it. Flesh, firm, greenish white, sour, with a slightly astringent aftertaste. It ripens in October and keeps all winter. Good for cooking.

(242) SCHRIOKOLITSCHIKO—*Broadleaved.*

Dr. Regel says that this is growing in the Province of St. Petersburg, and, according to Baron Tiesenhauser, was brought from Dorpat. Judging from the woodcut and plate in Dr. Regel's book, it is one of the largest and a rather handsome fruit. It is a yellowish-green, and later yellow; on the sunny side dull, or more lively red, in stripes and splashes. The flesh is white, tender, acid, with a bad aftertaste; useful only for cooking from September to January. The tree seems quite hardy at St. Petersburg.

(245) BOROVINKA—*Mushroom.*

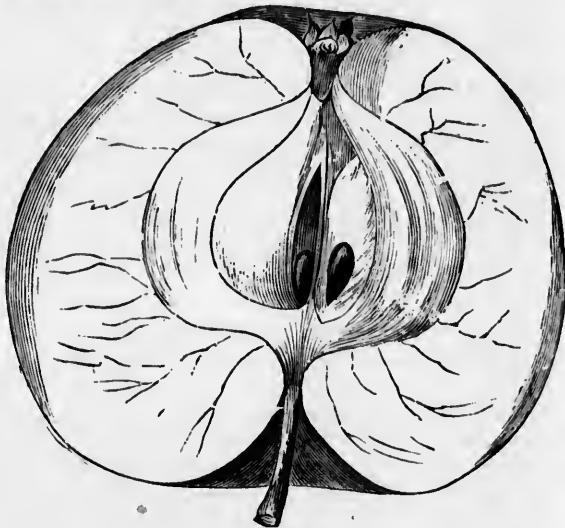
Mr. Budd says—Like Duchess, but a month later.

Dr. Regel speaks of the Borovinka as one of the most important of the Russian apples, and says it is grown largely as far as the Provinces to the south of Moscow. It has been grown even at the convent of Valaam, on Lake Ladoga. The tree is large and spreading, and stands the coldest winters of the St. Petersburg climate, bearing fruit every year, and bearing very heavily alternate years. This tree is named after the family of Borovinyh, in the Province of Tula. The fruit is large, lemon-colored, with marblings, splashes and stripes of bright red. When uncolored, owing to wet weather, it is known as the White Borovinka, and different names are given to it according to its size and color. The flesh is white, sometimes tinged with red; tender, agreeably sour, with a very nice aftertaste. Some specimens Dr. Regel had, decayed in September; others kept until the beginning of December. An opinion, cited by Dr. Regel, gives to the Borovinka a place second only to Antonovka.

In my report on Russian fruits, I had spoken of Borovinka as the family of which the Duchess of Oldenburg is a member. In this catalogue the Duchess appears under all sorts of names, yet we did not see the Duchess in Russia, neither have I been able to find out the Russian name for it. In the Pomology by Dr. Regel, of the 1844

apples, of which a colored print is given, the Duchess certainly does not appear.

The "Sad i ogrod owocowy," by Prof. Jankowsky, of Warsaw, gives a description of Charlamovskoe, which is very like Duchess, noting also that it is known to the French as Borovitsky. In the "Dutche Pomologie," by W. Lauche, of the Pomological Gardens at Berlin, there is a beautiful colored print of Charlamovskoe, which one can hardly believe to be other than Duchess. The description too is Duchess, and among the synonyms are Borovitsky and Duchess of Oldenburg. I think I have thrown enough light on this subject to make the darkness visible.



BOROVINKA.

(246) PLOWITKA—*Prolific.*

A good cooking apple but a little bitter.—*Spaulding.*

Dr. Regel says that this is grown about St. Petersburg, and in the Coast Provinces, and at Pskov and Moscow. A roundish apple, about medium in size, and somewhat ribbed. When ripe, yellowish-green, with some splashes and stripes of red on the sunny side. The flesh is greenish-white, vinous acid; before fully ripe, very acid; in a good season it has an agreeable vinous taste. Good for cooking or bottling in water. It bears every year, and stands the winters well. It ripens about the 1st of October and keeps till spring. Samples, however, kept in a light room, did not keep longer than December.

(247) **POPOUKA POLOSATAJA**—*Popoff's Streaked.*

A mild sub-acid, aromatic dessert apple; size medium or small, yet not of special value.—*Webster.*

Dr. Regel says this apple grows at Strelna, about thirteen miles southeast of St. Petersburg. Baron Tiesenhansen says also at Dorpat. A fruit scarcely medium in size, and, judging from the wood cut, very slightly oblong. When fully ripe, it is a golden yellow, with a blush on the sunny side, upon which are dark carmine stripes. It is also speckled like a trout. The flesh is white, reddish under the skin, juicy, and a vinous acid, with a very slight astringent after taste. When not perfectly ripe it is very sour. The tree is hardy and productive, ripens in September, and keeps till December, but soon spoils in a light room. For home use only.

(248) **BEELE**—*White.*

Dr. Regel says this is grown in St. Petersburg, and from the Baltic Provinces to the South Provinces of Russia. It is a medium, or small-sized, greenish-yellow or lemon-colored apple, all one color. The flesh is white, tender and juicy, an agreeable vinous acid taste, without aftertaste. An autumn apple, of use for dessert and kitchen. It ripens in September and keeps till December. The tree bears abundantly, and endures the worst winters in the climate of St. Petersburg.

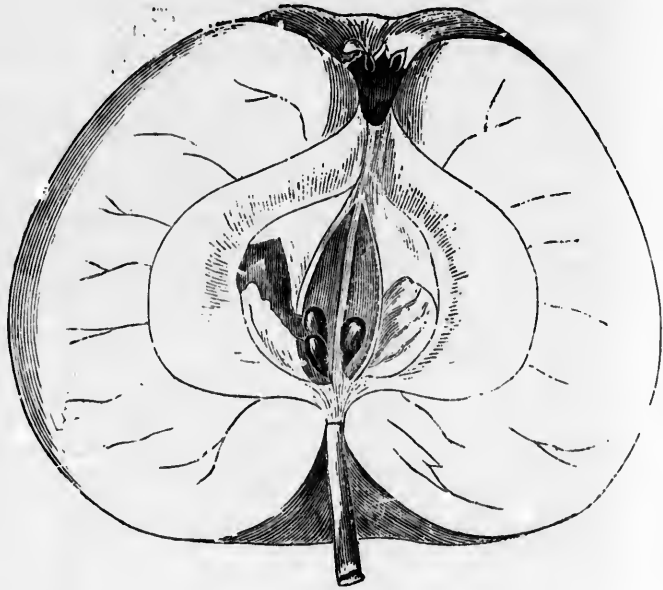
(252) **APORT**—*O' Porto.*

Dr. Regel says this is one of the most popular of Russian apples, grown at St. Petersburg and southward into the Baltic Provinces. In color it is green and yellowish-green, often with more than half the apple covered with red. Flesh yellowish-white, juicy, and after it is ripe a tender, vinous acid, with a nice agreeable aftertaste. Dr. Regel says Aport is one of the most generally liked of table apples. It ripens in October and keeps till May, and with care it may even be kept till July. It sells at high prices on account of its high color and attractive appearance. From Dr. Regel's colored plate it is clearly of Alexander type.

Among the many synonyms given by Dr. Regel to this apple, I find Titovka, and also Kaiser Alexander, of the German Pomologists. The Kaiser Alexander described by Mr. Jankowsky and by Mr. Lauche is very like our Alexander, most probably it, slightly modified by climate.

Dr. Regel speaks of the *Alexandrovscoe* as grown to the south of Moscow, and describes it from samples in the collection sent by Mr. Botvinsky. It seems to be an apple of Alexander form, but much smaller, and with a singularly long stalk. A yellowish apple with a little red on one side, hard in texture but afterwards becomes tender and vinous acid. Ripe in September, and does not keep long.

The Aport of Ellwanger and Barry, received from Moscow, is not of Aport type. It is a good sprightly apple. Ripe in August.



A.PORT.

(261) APORT REPTSCHATI—*O' Porto Turnip Seedling.*

Dr. Regel speaks of this as growing in the Province of St. Petersburg and in the southern parts of Russia. A medium or largish flat conic apple, somewhat ribbed; greenish, with a good deal of dark red. The flesh is greenish-white, agreeably vinous acid, with a nice aftertaste. The tree is large and spreading and is able to stand the severe winters at St. Petersburg, and has even been grown at Valaam. A good fruit for dessert or home use. It ripens in October and keeps throughout the winter. Samples which Dr. Regel kept in a light room, however, rotted in November. I notice Alexander-Aport among the synonyms of this apple; the colored plate in Dr. Regel's book shows a certain family likeness.

(262) CHARLAMOWSKOE—*Charlamoff.*

"An early fall apple, large and oblong, streaked with red and of excellent quality," says Mr. Oliver Gibbs, of Lake City, Minn. Mr. Webster speaks of the fruit as "large and handsome, resembling Duchess, but more conical in form, less acid and of much better flavor." Strange enough, the above two descriptions are exactly that of the Titovka, of Middle Russia. Mr. Webster, on reading my description of the Titovka we saw in Russia, at once thought of Charlamoff. However, with Mr. Webster, Charlamoff soon turns watery and rots,

and hence is valuable only for a quick and near market. Mr. Webster queries whether his slaty soil has anything to do with this. He has ceased to cultivate it. The Titovka we saw in Russia in all stages of ripeness, and it showed no weak point such as Mr. Webster speaks of.

Dr. Regel says that this apple originated at Tula, whence it spread throughout Russia. It is quite large, and sometimes measures thirteen inches in circumference; yellowish, without any red. Phlotov describes it as having red stripes on the sunny side, but the Charlamoff of Krasnoglazov, of Moscow, has no stripes. It is mildly acid, and ripens at the end of August. Krasnoglazov says that the tree is tender, but trees received from Moscow did not suffer at St. Petersburg during the winter of 1866-67, and are doing well. Dr. Regel cannot say if this is the same as the Charlamovskoe of Germany or not.

(264) DUCHOWOE—*Smelling Apple.*

Mr. Sias says:—"A No. 1 fruit, strongly perfumed, almost equal to the sweetest rose; the color of Red Gilliflower and the size of Black Gilliflower; season, last of August." It died because grafted on an uncongential stock."

Dr. Regel describes the Duchovoe, from samples from the Province of Tchernigov from Baron Tiesenhausen, a yellowish-green or yellow apple, with a good deal of red on one side and rather above medium in size; flesh white, juicy, agreeable and vinous acid; a fine looking fruit, good for table and cooking; ripe in September and keeps till December; not highly perfumed.

(265) PIPKA GOVKAJA—*Butter Pipka.*

Dr. Regel says this is grown about St. Petersburg, also in the garden of Mr. Atriganiov. A small, roundish oblong, conic apple, sub-acid, with slightly bitter aftertaste; in season from November to December. Good for bottling in water.

This should have been translated *bitter*, not butter pipka.

(266) POLOSATOE NOWGORODSKOE—*Novgorod Strreaked.*

Dr. Regel speaks of this as growing in the Province of St. Petersburg and in the country to the south of Moscow. A medium-sized apple, with a good deal of dull red on the sunny side. Flesh soft and sweetish, and used for cooking from September till December. The tree is upright in growth, bears a good amount of fruit every second year, and is not injured by the coldest winters of the St. Petersburg climate.

(268) SAKARITNOE—*Saccharine.*

Dr. Regel describes this only from samples from the garden of Mr. Atriganiev in Tchernigov. It is a largish, oblong ovate, irregular apple,

yellowish-green, with a yellowish-red side with some splashes. The flesh is white and very agreeably vinous acid. A splendid table apple, which ripens in September and keeps till December and longer. It seems to be hardy at St. Petersburg, although young trees were injured during the winters of 1866-67.

There is some mistake in my notes or elsewhere, as a sour apple could not be known under such a name.

(269) *APORT ROSOWUI—O'Porto Rosy.*

Dr. Regel describes this from specimens received from Mr. Atriganiev, in the Province of Tchernigov. A medium-sized, roundish pale-yellow apple, with red on the sunny side. Flesh as white as snow, tender, acid; useful for either table or cooking. Ripens in October and keeps till January and even longer.

(272) *SCHAPOTSCHKA—Little Red.*

Dr. Regel describes this from samples received from Mr. Atriganiev, in the Province of Tchernigov. A globular fruit of full medium size. On the sunny side a pale blush with a good deal of dark red in stripes and splashes. Flesh greenish-white, juicy and a little sweet. A good-looking fruit, which ripens in September and keeps till December. For home use only.

(274) *ROSOWOE—Rosy.*

Dr. Regel received this from Mr. Atriganiev, in the Province of Tchernigov; also from Baron Tiesenhausen, of Yamburg. An apple of medium size, yellowish-green, mostly covered by a carmine blush, with splashes and stripes. Flesh white, sometimes stained with red, tender and juicy, vinous-sweet, with a fine aftertaste. When fully ripe it loses its juice and begins to decay inside. A fine-looking dessert apple, of excellent quality. It ripens in December and may be kept about two months.

(275) *SOTOTOREFFKA—Zolotoreff.*

Mr. Tuttle thinks highly of this as a fall market fruit. It is a large, cylindrical, showy apple with a good deal of color. Flesh a little coarse, but juicy and spicy, with a good mingling of sweet and acid; keeps till November. Mr. Webster speaks of it as a large, showy apple, very productive, and ripe in October, but flattish in form and oblong; and a specimen sent by him to Mr. Tuttle was not recognized by Mr. Tuttle as the same apple. Mr. Downing has expressed a favorable opinion of Zolotoreff, but of which I do not know.

Dr. Regel speaks of this as growing in the fruit gardens about Moscow and in the provinces to the south—Tula, Tchernigov and others. It is a medium or large-sized yellowish-green or greenish-yellow fruit, blushed with red on the sunny side. I believe there is no mention, in the description, of the red

appearing in splashes or stripes. The flesh is a vinous-sour or vinous-sweet, with a very agreeable aftertaste, like the Reinette. It ripens about the first of October, and keeps all winter.



VARGUL.

(277) VARGUL—*Wargul*.

Dr. Regel says that the Vargul is one of the most popular apples at Voronezh. When fully ripe it is a yellowish-green, with red on the sunny side, covering half to three-quarters of the fruit. The flesh is white, soft, juicy and somewhat acid, of agreeable brisk flavor, with nice aftertaste. For its good looks, and its good flavor, it is much liked both for the table and kitchen. Season from October till the end of winter.

(278) BOROWINKA KRASNAJA—*Red Mushroom*.

Dr. Regel speaks of this as growing in the provinces to the south of Moscow, and says that it is often mistaken for Borovinka. The skin is a dingy yellow, the sunny side, and sometimes the whole apple, being covered with a lively dark red, upon which are splashes of carmine, or dark blood-red. The flesh is usually a little reddish, tender, very agreeably acid, with a nice aftertaste. It is a good and handsome table apple; in season from November to December. Judging from the plate in Dr. Regel's book, it is a fruit of full medium size, roundish, and sometimes slightly oblong; a very beautiful fruit.



WINTER APORT.

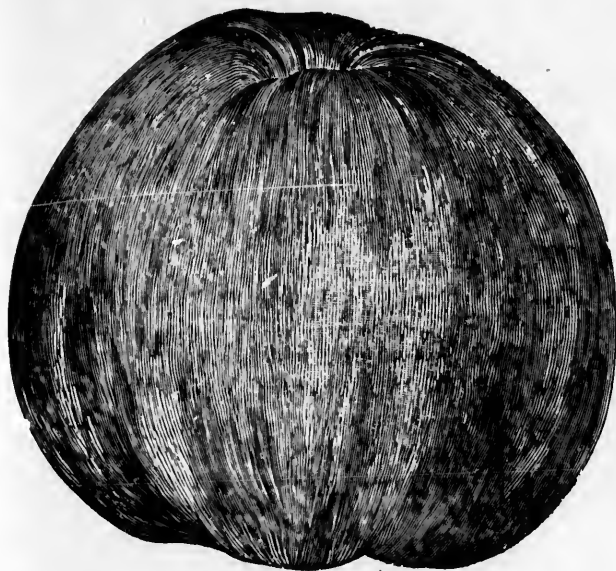
(279) APORTOWOGE SIMOWOE—*Winter O'Porto*.

This apple did not suggest to Mr. Sias any Alexander parentage. The fruit was below medium in size when grafted on Hislop crab; a trifle above medium on apple roots. It is more flattened and less red than the Alexander. Mr. Sias has fruited it for three years, and rather likes it, although it is not of fine quality. The tree seems hardy.

Among these winter Aports in Russia we find some remarkably good apples. In the Kozlov market we tasted one which was just like Alexander in appearance, but tough in texture, a mingling of sharp acid and sweet; an apple of fine quality, and evidently a good keeper. Dr. Regel describes an Aport which keeps from October till May. Mr. Schroeder, at Petrovskoe Rasumovskoe, near Moscow, says Aport, or Kaiser Alexander, is aromatic in flavor and keeps till spring. Mr. Wagner, at Riga, notes his Aportapfel Grosst'er as a late winter apple. I men-

tion this because Emperor Alexander, which is but another name for these apples, should be imported for trial from all possible sources in Russia.

Dr. Regel describes Winter Aport, from samples received from the garden of Mr. Atriganiev, in Tchernigov. In color, a light green, and on the sunny side a dull dark red, covered with carmine in splashes and stripes, covering often three fourths of the surface. Flesh greenish white, rather crude, sour. A good kitchen apple which keeps all Winter. The colored print as given in Dr. Regel's book, is strikingly like that which we saw at Prince Gagarine's, at Tenki, on the Volga; a large, handsome, oblong, winter apple. This apple as noted in my report on "Russian Fruits" is very like the Titovka of the Volga and of middle Russia.



WINTER APORT.

Another Winter Aport is described by Dr. Regel. A large, flattish conic, ribbed apple, somewhat of Alexander type, though not as much so, judging from the plates in Dr. Regel's book, as Aport (252). It is described from samples from the Provinces of Pskov and Vladimir. It is a pale yellow, mostly covered with splashes of light and dark red. The flesh is white, firm, very agreeably acid, with nice aftertaste. It is valued on account of its fine size and delicate flavor. One of the best dessert apples. It ripens in September, and keeps till December and January, though specimens kept in

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a light room rotted about the end of October. Young trees at St. Petersburg only suffer during such unusual winters as 1866-67.

(282) **RENETTO WORONESCHSKI**—*Woronesch's*.

Dr. Regel describes the Voronesh Reinette from specimens sent to him from that place. It seems to be an apple of full medium size or above; green or yellowish-green, often with some yellowish-red on the sunny side. The flesh is greenish-white, firm and juicy, with a delicious vinous-sweet flavor. An excellent table apple; in season from November till the end of winter.

(283) **SLAST**—*Sweet*.

Dr. Regel mentions this as growing about St. Petersburg and in the Province of Pskov. It is an apple of full medium size, somewhat flat and conic, and somewhat ribbed. It is yellowish, with a few stripes of pale red; tender, and very sweet; very good for cooking; in season from September till January and later. The tree stands the severest winters at St. Petersburg, and bears plentifully every year.

(284) **STEKLIANKA KREMER'S**—*Kremer's Glassy*.

Dr. Regel saw this in the gardens at Czarskoe Selo, fifteen miles from St. Petersburg. It seems to have been named after Mr. Kremer, the gardener, probably, at the Imperial residence. It seems to be a medium or largish apple, pale yellow or a little red; flesh greenish-white, tender, and slightly acid; a cooking apple, which ripens in September and does not keep long. The tree suffers somewhat during changeable winters, and bears every year.

(285) **REPRISTOE WALISONOE**—*Turnipy Juicy*.

This is a large or very large, somewhat oblong apple, rather better in quality than Alexander and about as well colored. It carries well and keeps towards winter. A showy market fruit, which Mr. Tuttle values highly. It ripens with Alexander. Mr. Perry says "a large, oblong, red-striped apple of fair quality, resembles Alexander; season, September and October."

(286) **KREMERSKOE**—*Kremer's*.

This I saw in Mr. Sias' orchard—a rather large, tender apple of good quality. Mr. Sias seems to think a good deal of it. Season probably about September.

As far as we know, says Dr. Regel, this has been grown only at Czarskoe Selo, fifteen miles from St. Petersburg. A medium or small-sized apple; when ripe a waxy yellow, with a little red on the sunny side. The flesh is white and very sour. The tree is of medium size, and does well in the climate of St. Petersburg, and bears a good crop of fruit every year. It ripens in September and keeps till November

(288) MALINOWSKOE—*Raspberry*.

Mr. Tuttle says :—" Fruit of medium size, bright red, very beautiful ; a mild, pleasant sub-acid when fully ripe. Flesh quite red."

Dr. Regel speaks of the Malinowskoe as an apple of which he had merely seen a sample from the garden of a farmer in the Province of Novgorod. I should describe it as a small apple with a large core. It is yellowish-green, and on the sunny side a reddish-yellow. Flesh sweet and of use for cooking. Ripe in September and does not keep long. Tree not hardy.

Another Malinowskoe is described by Dr. Regel :—A small-sized, round, reddish apple, grown about St. Petersburg and Moscow. Flesh white, often reddish under the skin, tender, juicy, agreeable, vinous acid, with a nice aftertaste. The tree stands the worst winters at St. Petersburg. The fruit is nice looking, and recommended for table use on account of its fine flavor. Season from September till the end of winter.

Mr. Saunders, of Washington, says :—" A small apple, very brilliant in color—crimson. Flesh white, very juicy, sweet and crisp." According to the cut given by Mr. Saunders, it cannot be the first given above. From the description given, it does not seem likely to be the second. See No. 340 for the Malinowskoe Lievlandskoe (Lievlander Himbeerapfel) is the Himbeerapfel or Malinowskoe of Mr. Goegginger, of Riga.

(290) UKRAINSKOE—*Ukraine*.

I saw this in bearing at Mr. Underwood's. The fruit was large and fine, though top-grafted on crab. I saw it in bearing at Vilna, in the West of Russia : a large apple like an uncolored Northern Spy. It has the name in Russia of being a hardy tree, yet a light bearer of apples of second quality that keep and ship well. I rather think this apple is true to name.

Mr. Perry, of Beaver Dam, Wis., says :—An apple of large size, in form and color like Northern Spy, plaited or ribbed at the blossom end ; very showy ; flavor, sub-acid ; tree hardy, strong and upright. Season, September and October ; however, if picked early, it might keep a month later.

Dr. Regel says this is grown in the Provinces of St. Petersburg and Moscow. A medium-sized apple, green when picked from the tree, afterwards a yellowish-green with dull red on the sunny side. Flesh greenish-white, granular ; at first vinous acid, afterwards becomes sweeter and more agreeable. Good from September till January and later. The tree grows to a large size, and stands the coldest winters. In good seasons it may be considered a dessert apple, but usually is fit only for cooking.

(304) SUISLEPPER—*Switzer.*

Mr. Webster says :—Here we have a hardy, vigorous tree, a good bearer of handsome apples, valuable for home use and market. Fruit medium to large, often covered with red, juicy, half-fine, rather tender, with a fine sub-acid, slightly quince-like flavor, more like French than Russian apples; a good keeper for its season, which is September and October. Dr. Heskens, however, notes the fact that, as it bears on the ends of its shoots, it is apt to drop off; other than that, he is inclined to think highly of it. It is certainly an apple of fine quality, and Mr. Downing says “undoubtedly valuable for home use and commerce.”

Dr. Regel notes this as perfectly hardy as far as tried.

(315) HERRENAPFEL—*Lord's Apple.*

Mr. Tuttle describes this as a large fruit, the size of Blue Pearmain, with much the same color and bloom; a clear, strong, pleasant acid; an apple that hangs well on the tree, and keeps longer than Longfield. Mr. Tuttle also says that the tree is hardy and a good grower, so that he considers it one of the most valuable he has tested. Mr. Sias says that on Hislop Crab stock it is only medium in size, and not as good a keeper as Blue Pearmain. This is evidently an *Arabskoe*. The Riga catalogues contain both the names of *Arabskoe* and *Herrenapfel*, although Mr. Wagner does not mark either of them as late winter. Mr. H. Goegginger says that the *Herrenapfel*, or, more correctly speaking, the *Polnischer Herrenapfel*, is of medium size, red all over, of first quality, and a good market apple from October to December. He says further that it is a hardy and a large tree, which bears very well, and he thinks very highly of it.

Dr. Regel received his *Herrenapfel* from Mr. Wagner and from Mr. Detrich, of Riga. His young trees stood the trying winter of 1866-67.

(316) ROTHE REINETTE—*Red Queen.*

This Mr. Tuttle believes to be the same as his *Rannet Red*. Fruit of good size, dark green with red side. Keeps till March.

(317) GOLUBINOE BEELOE—*White Pigeon.*

This is a small fruit, very conic in form, with wrinkled eye and no basin. A sweet apple, of fine, but very peculiar flavor, and of defective texture. Both Mr. Webster and Mr. Sias speak of the extra hardness of this tree. Those who have fruited this do not speak of its defective

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texture, I think I must have tasted an unfair specimen. Mr. Sias says tender and juicy.

(321) PIPKA SLADKAJA—*Sweet Pipka*.

An excellent, though under-sized, striped, autumn, sweet apple, that died from being grafted on an uncongenial stock.—*Sias*.

(322) KOVITSCHNEOE—*Brownj*.

Like Duchess, but harder and later in season, and less acid.—*Tuttle*.

Dr. Regel speaks of this as growing about St. Petersburg, and as far as the provinces to the south of Moscow. The fruit is yellowish-green, and afterwards yellow, on the sunny side reddish, on which are many carmine stripes and splashes. Specimens grown in the shade have little or no red. Flesh white, or stained with red under the skin; tender, mildly acid, with a good aftertaste. A good table apple, but specially valued for cooking. It sells at good prices. Judging from the woodcut and colored plate given by Dr. Regel, it is a flattish apple of medium size, with rather shallow basin, much like the Koritschnevoe Polosatoe we saw in Middle Russia.

(323) REPOUKA—*Turnip*.

Dr. Regel says his samples were from Ropsha, the place where Peter the Great breathed his last. A medium sized, very flat and ribbed apple. Color yellowish-green, on the sunny side a yellowish-red, on which are some blotches and stripes. The flesh is greenish-white, very firm, a good vinous-sweet, with an agreeable aftertaste. Good for dessert and home use. It ripens in October, and in a warm room does not keep longer than the last of that month. The tree is quite hardy.

(324) NEEMEZKI KALVILLE—*German Calville*.

Mr. Webster says this tree is a fair grower, an early and abundant bearer. Fruit large to very large, flattened and ribbed. It is in its best condition from December to January, yet may be kept till 'arc'. Specimens brought by Mr. Webster to the Montreal Horticultural Society's Exhibition had much the appearance of the White Calville of France.

Mr. Perry says:—"This, to my mind, is Duchess of Oldenburg." Mr. Perry says he had twelve specimens on a transplanted tree, and will be able to report positively another year. This is evidently not the same as that grown by Mr. Webster.

Dr. Regel finds this tree not quite hardy.

330) POLOSATOE NALIWNOE—*Juicy Streaked.*

Mr. Sias says :—Fruit medium or above ; yellowish-white in color ; good in quality ; tree hardy ; season, last of August or beginning of September.

Dr. Regel says that this grows about St. Petersburg and Pskov. Judging from the woodcuts in Dr. Regel's book, it is a medium-sized, conic, yellowish-green apple with a little red on one side. The tree seems not quite as hardy as some other Nalivs.

(332) PLOWITKA RAMAJA—*Early Prolific.*

Dr. Regel says that this is grown from St. Petersburg to the country beyond Moscow. It is a medium or small-sized flat conic apple, covered with red on the sunny side ; juicy and agreeably sub-acid. The tree stands the worst winters, and bears well every year. Good for cooking or dessert. It ripens in September and keeps all winter.

(333) SKWOSNOI KRASNOI—*Red Transparent.*

A sweetish apple of white Astrachan type, but more bright and attractive in color.—*Sias.*

(334) SKWOSNOI SCHOTOI—*Yellow Transparent.*

This is one of the best known of the apples in this catalogue, and has been propagated a good deal in place of Tetofsky. Now Charlottenthaler looms up as a rival both in size and earliness.

(335) SKWOSNOI SELENOE—*Green Transparent.*

"Much like Yellow Transparent, but smaller and more conical, and the tree less vigorous in growth," says Mr. Webster. Mr. Tuttle says it is White Astrachan.

(336) SKWOSNOI BEELOE—*White Transparent.*

"Just like Yellow Transparent," says Mr. Tuttle ; "if any preference, I would choose the White." Mr. Webster discards it. Dr. Hoskins says "considerably smaller than Yellow Transparent ; whiter, rounder and better in quality ; very like Early Harvest."

(337) SCRINKA—*Grayest.*

I have not yet heard of this having fruited. It is a popular autumn dessert apple in the Baltic Provinces. Mr. Goegginger, of Riga, says that of the two kinds known as Serinka, the *red* is the valuable one. This, as received from Mr. Goegginger, is not the same as that received by Mr. Budd from St. Petersburg. The fruit sent by Mr.

Goegginger to Montreal this last autumn was mostly a dull red in close marblings and stripes. I mention this to enable the fruit to be identified.

Dr. Regel received his Sierianka or Glinistoe, or Lehmapfel, from Mr. Wagner, of Riga; it is grown mostly in the Baltic Provinces. It is above medium in size, greenish-yellow, splashed and striped with red; an excellent dessert apple. It is firm in flesh, and with good care keeps till the New Year.

(338) GRUSCHEFFKA REVELSKAJA—*Revel Pear*.

This I saw in the orchard of Mr. Sias. It is mild in flavor, being neither sweet or sub-acid, water-cored, but very nice; very good in quality for an apple of that type.

Dr. Regel says this is a fruit grown in the Coast Provinces, and brought from thence to St. Petersburg. The fruit is large on young trees, smaller as the trees get older. When grown in the shade it has very little color, and is then known as the Green Gruscheffka; when grown in the sun it has a few splashes and stripes of red. The flesh is white, juicy, an agreeable vinous acid, with fine aftertaste. The tree stands the severest winters at St. Petersburg and bears lots of fruit each year. It ripens in September and may be kept till December.

(340) HIMBEERAPFEL, LIEVLANDER—*Lowland Raspberry*.

"A medium-sized ribbed apple of pretty good quality," says Mr. Tuttle.

Dr. Regel says he has only seen samples of this from the Baltic Provinces. Judging from the woodcut, it would appear to be an apple above medium in size and roundish conic. In color, says Dr. Regel, a dull yellow green, sometimes with dashes and spots of red. The flesh white, fine and juicy. It has scarcely any acidity, and has a slight degree of aftertaste suggesting the flavor of the strawberry. An excellent autumn table apple, that keeps from September till the New Year. This tree does not stand the coldest winters very well. Dr. Regel says this is the Himbeerapfel or Malinovskoe of Mr. Goegginger, of Riga.

(342) SCHARLOTTENTHALER GOLBA—*Charlottenthaler*.

This is perhaps the best of the family of which the Yellow, Green and White Transparent, and Red Duck are members. Mr. Webster also places Sweet Pear and Moscow Pear in the same group. In the opinion of Dr. Hoskins it is rather larger than the Yellow Transparent, and it is thought by some to be a little earlier. Dr. Hoskins, however, says not a day earlier. Mr. Webster says its season commences and closes ten or twelve days earlier than Red Astrachan. The word

Golba, is intended for Gelber, Yellow. Dr. Regel received this apple from Wagner, of Riga.

(343) WEINAPFEL ROTHER—*Red Wine*.

"This is much like Sops of Wine in appearance, and very handsome. It is below medium in size, quite acid and earlier than Duchess," says Mr. Tuttle. Mr. Webster says "a sharp acid fruit like Red Astrachan, perhaps a seedling of it."

(344) SULTANAPFEL—*Sultan*.

I am not sure that I know of this having been fruited from the Department List. This, or Grand Sultan, has been introduced from several sources. Ellwanger & Barry received theirs from Thomas Rivers, of Sawbridgeworth, England. Some say it is, or is like, White Astrachan. Dr. Hoskins, who received it from D. W. Adams, of Waukon, Iowa, in 1872, says "not at all like White Astrachan, but exactly like Yellow Transparent in tree and fruit, except that the latter seems less hardy than Yellow Transparent."

(350) LAPOUCH—*Burr*.

"A small or medium-sized flattish apple, yellowish-white; a tart, pie apple. A hardy tree and a good and early bearer," says Mr. Sias. Mr. Tuttle says "much like Red Duck in form, size and quality, but a month later and not as yellow. Tree a slow grower. No. 470 is the same in name, but whether like this or not I cannot say."

Mr. Perry describes *Burr*, whether 350 or 470 I cannot say, as a large, oblong, white apple, which resembles Keswick Codling, for which it is an excellent substitute. A fine, tender, sharp acid cooking apple; season, August; tree very hardy and a stocky grower.

Dr. Regel received this from Moscow. It was not injured in 1866-67.

(351) PLODOWITKA CAUDKAJA—*Prolific Sweeting*.

A yellow apple of medium or largish size. The best of the sweet apples for market purposes, says Dr. Hoskins. Mr. Webster says—The tree is of Tetofsky type, and very productive. An excellent sweet apple; ripe in August and September.

Dr. Regel says this grows in the Provinces of St. Petersburg and Pskov, a small, greenish-yellow apple with some red on the sunny side; flesh, white, soft, and somewhat sweet; use, cooking; season, September to January.

(354) KRIWOSPIZOE AROMATNOE—*Curly Spiced Aromatic*.

Dr. Regel speaks of having seen this at or from Mr. Vochin's, at Pskov, and also in the Imperial Gardens at St. Petersburg. It is a medium-sized,

apple, roundish, somewhat conic, and slightly ribbed. In color, yellowish-green; when fully ripe, the color of a lemon, with dashes of light and dark red, covering the greater part of the sunny side. The flesh is greenish-white, juicy, mildly acid, with very fine aftertaste. An excellent dessert apple, which ripens in September, and may be kept till the following spring. This apple is recommended for trial. Mr. Vochin has planted it largely. Young trees suffer only in very cold winters at St. Petersburg.

(355) **APORT HERBST**—*Autumn Orange.*

Mr. Sias showed this in good condition at the winter exhibition of the Minnesota Horticultural Society, from the 16th to the 19th of January last, and took second premium. Fruit, small, irregular in shape, dull greenish-yellow; not valuable, at least not on Hislop crab stock. The wrong translation of these names is much to be regretted.

(359) **MOTSCHETSCHNOE**—*Wetting Apple.*

Dr. Regel says this is grown in the Provinces of St. Petersburg, Pskov, and Moscow. An oblong conic apple of medium size. When fully ripe, yellow, with a faint blush; juicy, tender, and agreeably sub-acid. It ripens at the end of September, and keeps till late winter. It is especially good for bottling in water.

(360) **FUNTOWOE**—*Pound Apple.*

Dr. Regel describes this only from samples received from Mr. Vochin's, near Pskov. A large, roundish, slightly conic apple. Judging from the colored plate, it looks a good deal like Cellini. When fully ripe the skin is yellow, mostly covered with red. Flesh, white, and agreeably acid, with a slightly astringent aftertaste. It ripens in September and keeps till midwinter.

(362) **SWINZOFFKA**—*Lead Apple.*

Dr. Regel says that this grows about St. Petersburg and in the Provinces to the south of Moscow. An apple of medium or scarcely medium size; green or yellowish green, with a little dull red on the sunny side. The flesh is white or greenish white, and when fully ripe, a vinous acid, with an aftertaste like a reinette. Fruit grown in the South has more flavor than that grown in the North. A fine table apple, which ripens end of October and keeps all winter.

(364) **BEEL WOCHINS**—*White Wochins.*

Tree, a slow grower, an early and good bearer of large, smooth, handsome, sub-acid apples, ripe in September. Not so good as Duchess for general culture, says Mr. Webster.

Dr. Regel only saw samples of this grown in the gardens of Mr. Vochin and Baron Tiesenhausen. It is below medium in size; when fully ripe a waxy yellow, all one color, except a little red around the cavity. Useful for dessert or cooking, and in season from October till December.

(367) POLOSATOE—*Red Streak.*

Dr. Regel speaks of this as growing in the Provinces of St. Petersburg and Moscow. A large, roundish, conic apple. When fully ripe, a greenish-yellow or lemon color, with a faint blush on the sunny side and some red stripes and dashes. The flesh is tender, juicy, and vinous acid, with a slight but good aftertaste; but if not fully ripe, then very sour and somewhat astrigent. The tree is pyramidal, and grows to a large size. It stands the winters well, but is not productive. The fruit is very large and good; it ripens in September and keeps till November or December.

(368) MINONE SACHARNI—*Sugar Barbel.*

Mr. Webster says—A good bearer of medium-sized, striped, sweet apples; for general purposes not equal in value to Prolific Sweetening; otherwise, of value. Dr. Hoskins says—A small, brilliant red, nice sweet apple, but too small for practical value. It will not average one-fourth the size of Prolific Sweetening. Season, September.

Dr. Regel describes this as an apple that is thought a good deal of at Moscow. It is an apple of medium size or below; a yellowish-green, or yellow, with some dingy red in splashes, sometimes with a good deal of red on the sunny side. The flesh is tender, white, agreeable, and very sweet, and with an agreeable aftertaste. The tree stands the coldest winters at St. Petersburg, and hence is a favorite early apple, and brings a good price. It ripens in August and keeps till December. It may be said to be good for eating, though not strictly a dessert fruit.

(369) PIPKA—*Pipka.*

Dr. Regel mentions this as growing in a few gardens in the Province of St. Petersburg. A medium or small-sized, roundish oblong, conic apple; yellowish-green, and yellow on the sunny side. Flesh, white and sweet, with agreeable aftertaste. It ripens in September and keeps till December, but spoils in a light room the middle of October. The tree stands the severer winters well, and bears plentifully every year. Pipka Sacharnaja, No. 406, appears only as a synonym of Pipka.

(371) SKRUT DEUTSCHER—*Skroust German.*

Dr. Regel says—This is grown from St. Petersburg to the Provinces to the south of Moscow. A roundish apple, of full medium size. When on the tree it is yellowish-green, afterwards a pale lemon, with more or less red on the sunny side, and light or dark carmine stripes. The flesh is juicy and agreeable, mild, vinous acid; good for dessert or cooking. It ripens at the beginning of September, and keeps till January. Samples kept in a light room, however, rotted in October. It is well worth planting, as it stands the severest winters at St. Petersburg.

(372) PETROWSKOE—*St. Peter's*.

Dr. Hoskins has characterized this as the Russian "Early Joe." He considers it better than Switzer, and the best of the Russian dessert apples of its season, which is during August and September. Mr. Webster says—A good bearer of small but handsome fruit, striped with red, fine in grain, of fine flavor for a Russian, better perhaps than Switzer, but does not carry as well. I also saw this fruiting at Mr. Underwood's. Mr. Perry says—A small striped apple of fine quality. September.

Dr. Regel says that this is often seen in the fruit gardens about Moscow. It was also sent to him by Mr. Vochin from Pskov. The fruit is quite large; when on the tree, quite green; when ripe, quite yellow, the sunny side largely covered with dull red. The flesh is white, firm, juicy, with a slightly vinous acid taste. A good summer apple; useful for dessert and cooking, but even as early as the 15th of October, it began to decay, and one bad specimen spoils those near it.

(374) WISLOWCHOE—*Pendent Ear*.

Resembles Duchess in size and color, and is about as prolific, but too astringent. It is the same as 240—*Sias*.

Dr. Regel mentions this as grown by a peasant orchardist in the village of Mironov, in the Province of Novgorod. A roundish conic apple, of full medium size; greenish-yellow, with a faint blush. Flesh, firm, and not juicy; afterwards mealy, sweet, with an aftertaste like Anisovka. An autumn cooking apple.

(375) KORITSCHOWE ANANASNOE—*Brown Pine Apple*.

Dr. Regel says—This is grown about Pskov and Novgorod, and thence towards the Provinces south of Moscow. A medium-sized apple, somewhat flat, very largely covered with dull red, with light and uneven stripings, though sometimes these stripes are not visible. The flesh is white, sometimes reddish under the skin: tender, vinous sweet, with a nice mild aftertaste. A good autumn table apple; in season from September to December.

(378) ORSIMUI—*Hibernal*.

Mr. Tuttle especially points out the good growth and perfect health of this tree, and thinks it worthy of trial in the colder climates. It is an early and good bearer of large and showy apples, blushed with red, and with large light dots. A good cooking apple, said to keep till December. Mr. Oliver Gibbs thinks highly of trees said to be of this variety, which he has found bearing in his neighbourhood.

Mr. Perry speaks of this as a roundish fruit, above medium in siz

yellow, with dark red, in stripes and blotches; sharp acid; December. Tree hardy and a young bearer, and a strong grower, rather inclined to branch on one side.

(380) GRUSCHEFFKA MOSKOLOSKAJA—*Moscow Pear*.

I would like to hear of this as having fruited, as in Russia, it would seem to be a favorite apple for early market. In Middle Russia, though small and white, its extreme earliness gives it value. At Kursk, we were told it was white in color.

Dr. Regel speaks of this as growing in the Province of St. Petersburg, and in the country beyond Moscow. It seems to be below medium in size; yellow with a good deal of red in splashes, and when grown farther south, mostly red. Flesh, white, sometimes reddish near the skin; tender, juicy, very agreeably acid, with a nice aftertaste, and this aftertaste is more perceptible in samples grown in the South. It is one of the earliest of apples. It ripens in August. A table apple much prized on account of its productiveness and its agreeable flavor.

(382) BUZKAFKA SELONKA—*Russian Green*.

This I saw in the orchard of Mr. Sias. Without doubt an *Anis*, of the type of the Blue Anis of the Volga. It is a medium-sized apple, flat, conic, and five-sided. Flesh, crude, and as yet uneatable. The fruit I saw at Mr. Tuttle's was just like it. This variety should be tried in the far North.

Dr. Regel received it from Voronesh, probably from the Pomological Gardens there. Young trees suffered in Dr. Regel's nursery in 1866-67.

(387) DOBRUJ KRESTIANIN—*Good Husbandman*,

Mr. Perry says—A fruit of medium size; green until fully ripe; about November, it becomes a rich, waxy white, sometimes with a bright vermilion cheek. Flavor, peculiar; spicy, aromatic, and delicious, but difficult to describe. The tree is hardy, and in the nursery a moderate grower. Leaf small and narrow. Mr. Perry predicts that this variety "has come to stay."

Dr. Regel speaks of this as growing near Moscow and to the south. A small green apple with perhaps a little dull red on one side; an excellent table apple that keeps till spring and later. The tree is said to be hardy in Moscow, but young trees in nursery at St. Petersburg were injured during the winter of 1866-67.

(393) ZITSONNOE ZARSKOE—*Imperial Citron*.

A good grower and a great bearer. Fruit of good size and fair quality, but not of special value. Season, September.—*Webster*.

Mr. Perry says—A large, roundish fruit; yellow, covered with light red specks; very showy; mild sub-acid. Tree hardy. Season, August and September.

(398) KRUPNEENA—*Enormous*.

An apple of Alexander type, and perhaps the largest of the August apples. Mr. Webster has grown specimens of this, nearly 14 inches in circumference. It is striped with red, almost covered; oval, irregular in form; somewhat coarse, but of fair quality for so large an apple, and of good sub-acid flavor.—*Webster*.

Dr. Regel received it from Saratov.

(399) KRIMSKAJA SELONKA—*Green Crimean*.

Tree not thoroughly hardy, and of value only for cooking.—*Hoskins*.

Dr. Regel mentions this as having received no winter injury up to date.

(402) BORSBORFER—*Borsdorf*.

This is a German rather than a Russian apple, and a member of a large family. The tree has proved hardy and a good bearer with Mr. Webster. Both Mr. Tuttle and Mr. Sias say the tree is hardier than Fameuse. The fruit, from Mr. Webster's description, is from small to medium, of fair appearance; firm, and of fine texture, sub-acid, rich and good. Dr. Hoskins says—When perfect, it looks very much like Ben Davis in form and color, but smaller. A first-rate keeper, is for home use, rather small for market.

(407) TSCHERNOE DREWO—*Blackwood*.

A favorite winter dessert apple, which sells at extra price on the Volga, on account of its fine quality. If picked early and stored in a cold place, it keeps till mid-winter or later. With Mr. Webster it ripened early and did not seem of special value. Mr. Tuttle says it blights; Mr. Sias says good tree.

Dr. Regel mentions this as growing about Novgorod and Pskov, as well as in Middle Russia. It is medium in size or nearly so; greenish-yellow, with a little red; flesh, white, tender, juicy, agreeably vinous acid, with slight aftertaste. A good dessert and kitchen apple, which ripens in September, and keeps till February; in a light room, however, it begins to spoil in November. It is grown largely, and highly thought of in the Southern Provinces, and especially in Saratov and Tambov. In Moscow there are not many trees of it, because there it feels the severity of the winters, and bears very little fruit. At Tambov it is grown in such quantity that it is shipped from there in all directions. This has been named from the dark color of the bark of the tree.

(410) REPKA MALENKA—*Little Seedling.*

Mr. Oliver Gibbs says this is like Duchess in form of tree. He had seen it in his neighbourhood in perfect health, although growing close to other trees badly blighted. It is an abundant bearer; fruit small, quality unknown at that season. Mr. Webster speaks of it as an enormous biennial bearer, and if thinned the fruit attains a fair medium size; that it is too hard to be eatable till warm weather in spring, when it gradually ripens, and becomes tender, juicy, and of fair quality and flavor. Mr. Sias says that at the winter meeting of the Horticultural Society, at Minneapolis, it was the best keeper shown. It tasted fresh and tart, as if just picked from the tree. I saw this apple at Mr. Underwood's. It seems to be of the same family as the Bogdanoff, judging by its leaf as pointed out by Mr. Budd. The Repka of Ellwanger & Barry, received from Moscow, is a summer apple.

Dr. Regel speaks of this as growing in the neighbourhood of St. Petersburg. The apple is of small size, from an inch and a quarter to two inches in height, and from a quarter to half an inch more in width. On old trees the fruit is very small indeed. Dr. Regel gives a woodcut of a sample from an old tree, an inch and a quarter by three quarters of an inch. On the sunny side of the apple there is a light yellowish blush, with some stripes. The flesh is white, tender, with an agreeable vinous acid. The fruit has always a nice taste; is ripe the beginning of September, and keeps till January.

This does not seem to be the long keeper sent out from Washington.

(413) SKRISCHAPFEL—*Cross Apple.*

This I saw in the orchard of Mr. Underwood, at Lake City, Minn. It is no doubt an *Anis*, of the Red Anis family. It was top-grafted on Crab, as is apt to be the case, and I was disappointed with the flavor of a prematurely ripened specimen. Mr. Oliver Gibbs, writing to me in November, says—"That apple you saw at Mr. Underwood's, and thought might be Anis, only from its lack of quality, turns out when ripe, to be red, high-finished, good, and a keeper. It is undoubtedly the Red Anis." The summer heat of Central and Southern Minnesota, in lat. 44 and 45, is no doubt much greater than that of the Upper Volga, from lat. 52 to above 55, and we may expect to find the fruit of those latter regions proportionately shortened in keeping qualities.

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Mr. Perry says—Large and round, sometimes flat; color, yellowish-green, with pale red stripes; resembling Colvert's in form and color. Flesh, coarse, but mild and agreeable in flavor. Season, November. The tree is very hardy, but a slow grower. When root-grafted on Crab, it is crooked and inclined to bear when two or three feet high, but makes a good tree when top-grafted on Gros Pommier. (I fear there is some mistake here.)

Dr. Regel speaks of this as growing in the Province of Moscow, especially about Tula. A medium or small-sized apple, green or yellowish-green, with a little red on the sunny side. Flesh, greenish-white, juicy, vinous acid, and vinous sweet, with an agreeable taste like a reinette. A good table apple, which ripens in October and keeps, not only through the winter, but through the following summer. It is well worth growing, as the tree stands the severest winters at Moscow and St. Petersburg. Only such winters as 1866-67 injure young trees.

Mr. Schröder, of Moscow, gives a like description of Skrischapel, but what we saw in Russia, seemed a more solid, weighty apple than that growing at Mr. Underwood's.

(426) SWINEZ—*Lead Apple*.

Dr. Regel received this from Moscow. The fruit, if I understand rightly, is either oblong or high conic, but I cannot be certain of this. Color, whitish green; stem always short; flavor, sub-acid; an excellent cooking apple. The tree is small and round-headed, and bears every year. Trees received from Moscow had not received any winter injury whatever. Season from September to January.

(427) ANISIMOWKOE—*Anissim*.

Dr. Regel mentions this as coming from a town near Yaroslav, to the north of Moscow. A small, conic, yellowish-green apple, with red side; very mildly acid; good for preserving in water. Ripe the end of September. The tree grows to a large size, and bears each year, and is a good tree for the climate of Moscow.

(429) BOSKLONOWKA—*Bosklonoff*.

Sweet, bitter, and worthless.—*Webster*.

(433) ORLOWSKOE—*Orloff*.

Mr. Tuttle says this is White Astrachan. Trees received from Ellwanger & Barry, fruited by myself and by Mr. R. W. Shepherd, of Como., Que., seem to be White Astrachan. Ellwanger & Barry received theirs from Thomas Rivers.

(437) SACHOISWAN—*Saxonian*.

Striped on yellow ground ; season, late fall.—*Tuttle*.

(439) KRIMSKAJA BEEL—*White Krim*.

This is Duchess says Mr. Tuttle.

This apple is known to Dr. Regel only from samples sent from the garden of Mrs. Garozenoui. in the Province of Vladimir. When ripe the apple is a shiny lemon color on the sunny side, covered with lively red, sometimes speckled with red like a brook trout. The flesh is white, firm and acid. A good dessert and cooking apple, which ripens in October, and keeps throughout the winter. From the measurements given by Dr. Regel, this apple must be considered small, or, at any rate, below medium in size.

It is difficult to understand how that this apple, known only in one garden and described as it is above, should prove to be Duchess.

(441) GRIMUSCHKA—*Rattling*.

One specimen I saw at Mr. Underwood's—a large brownish-red fruit.

Dr. Regel mentions this only as a synonym of Roshdesvenskoe No. 477, described by Krasnoglazov, of Moscow, under that name.

(444) REINETTE LIUBSKI—*Lubsk Queen*.

"A very beautiful sweet apple of no value," says Mr. Webster. Mr. Tuttle says although reported from the East as sweet, he finds it sub-acid. He adds further that it is a very good fall apple about the size of Autumn Strawberry. Mr. Saunders (at Washington) says a very beautiful fruit, rather crisp and palatable on July 10th.

(448) KARDINAL—*Cardinal*.

That which I saw at Mr. Underwood's was small, striped and of nice flavor. Dr. Hoskins described it as a red-cheeked apple on dull whitish-green ground, but he received his from D. W. Adams, of Waukon, Iowa.

(450) BEEL KRASAWIZA—*Handsome White*.

An apple of White Calville form and size, acid, crude and unripe, as I saw it in the orchard of Mr. Spaulding, of Minneapolis.

(451) WARSCHTAPEL—*Warsztappel*.

At Mr. Underwood's an apple of full medium size, green with some faint red ; very ribbed and very wrinkled.

(453) ARKAD KRASIWUI—*Beautiful Arcade.*

A hard, white apple, somewhat juicy, sweet and with some flavor, which Mr. Tuttle thinks very favorably of.

Dr. Regel speaks of this as an apple that grows in Old Russian County, in the Province of Novgorod. A small, roundish apple, mostly covered with a thin blush of red and darker stripes. Flesh white, sometimes stained with red; good for cooking. Ripens in September and keeps till November.

(455) RIABINOUKA—*Berry Apple.*

The Riabinovka, as grown by Dr. Hoskins, was received from Mr. D. W. Adams, Waukon, Iowa. An apple very closely resembling the Alexander. Dr. Hoskins and others agree that it is not that variety, yet Dr. Hoskins says there is no use in growing both. The tree is not perfectly hardy.

Dr. Regel speaks of this as growing in the Provinces of St. Petersburg and Riazan. A small apple, somewhat flat, not at all conic, with shallow, folded basin, and long stalk. Yellow, mostly covered with red, in dark and light stripes. Flesh tender, vinous sweet; in season from September to January. It is grown to a fair extent, as the trees will stand the coldest winters.

Evidently a very different fruit from that grown by Dr. Hoskins.

(457) KLINIEWSKOE—*Klineff.*

Mr. Tuttle says:—Fruit of medium size; yellow, with red cheek. Season, fall.

Dr. Regel describes Kluevskoe from samples from Moscow. A medium-sized, roundish cooking apple, that keeps into winter. It seems to be hardy at St. Petersburg, although it was injured in the nursery during the winter of 1866-67.

(458) SCHOLTINALIW—*Yellow Juice.*

Dr. Regel says this grows in the gardens of St. Petersburg, Novgorod and the Coast Provinces, and is often mistaken for White Naliv. It is quite suited to these climates, and bears lots of fruit each year. It ripens in September and keeps till November.

(462) RUBEZ SCLONNIU—*Green Cut.*

The Rubets Selonui, Dr. Regel says, is grown in the Coast Provinces, also at Moscow and southward; also, says Baron Tiesenhausen, in the Province of St. Petersburg. It is a medium-sized fruit, yellowish-green, with a little red on one side. Good for cooking only. Tree healthy, but not productive.

(463) PIPKA POSTILLNAJA—*Spreading Pipka.*

A small apple of Duchess type; sour, dry, flavorless; condemned.—*Dr. Hoskins.*

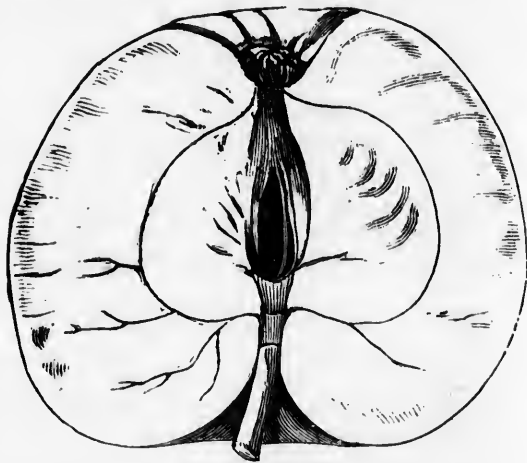
Dr. Regel mentions this as growing in the Province of St. Petersburg; an apple of about medium size, oblong conic, with shallow cavity and short stalk. When ripe it is yellow, with red on the sunny side; sub-acid, soon becomes mealy. It ripens in September, and keeps some time. Dr. Regel cannot recommend it.

(466) REPKA KISLAJA—*Sour Turnip*.

Dr. Regel describes this from samples from Kazan. I believe he also states it to be grown in the Province of St. Petersburg. A small, somewhat conic apple, sometimes with a slight pink blush; juicy, vinous sweet; good for dessert and cooking, from September to January. The tree endures the severest winters.

(467) MIRON PLOSKUI—*Flattened Barbel*.

Dr. Regel mentions having seen this in the Imperial Gardens, where Mr. Kremer is gardener. A small yellowish-green apple, with light red in stripes on the sunny side. The flesh is greenish-white, juicy and agreeably sweet; good for dessert and kitchen; in season from September to December. The tree does well in the climate of St. Petersburg.



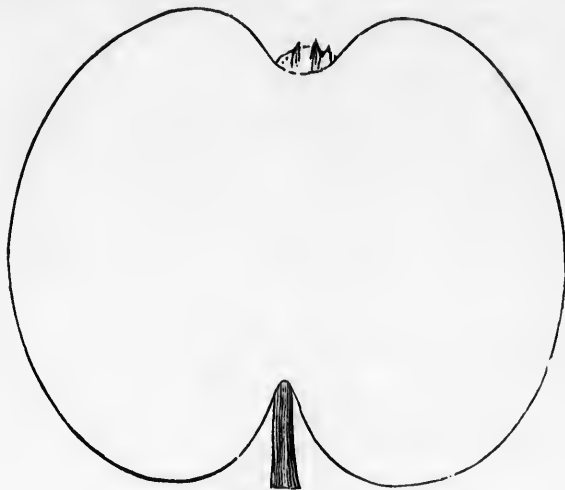
BABUSCHKINO.

(469) BABUSCHKINO—*Grandmother*.

Judging merely from the leaf, as examined by Mr. Budd, this would appear to be the same as that received by him from some other place in Russia.

Dr. Regel says that he received this from Moscow, and that it is grown in that province and in the provinces to the south. It seems to be an apple of

full medium size, yellow with a little red. It has an agreeable vinous-acid and aromatic flavor. Dr. Regel recommends it as a fine dessert apple, said to keep till August of the next year.. He had seen it in July.



OSTREKOFF'S GLASS.

(472) OSTREKOWSKAJA STEKLIANKA—*Ostrekoﬀ's Glass*.

This I saw in the orchard of Mr. Underwood. A small green apple, very conic, very wrinkled at the calyx, and without basin. Its length of stem I forget. Mr. Schroeder, of Moscow, described it to me as a small dark green apple with dull red side, conic, with corrugated basin and long stem. He says the tree is hardy, and that it is a good dessert apple and keeps till the following summer.

Dr. Regel seems to describe the same apple. He received it from Krasnoglasov, of Moscow, and speaks of it as a hardy tree, and a heavy annual bearer, and says that it is a fruit of medium size, yellowish-green in color and very sour. It ripens about 1st September and keeps a long time. It is a native of Tula, and named after a merchant there.

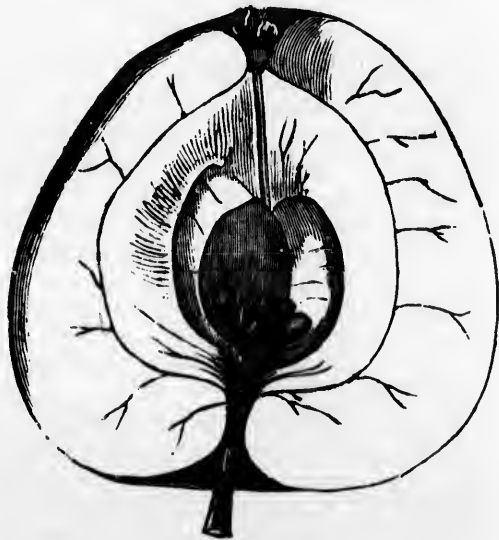
Mr. Budd, on reading my description, queries whether this may be the same as the Astrachan Pipin which he received from Moscow, which, however, is an apple of good size, and which Mr. Budd says "is a true Steklianka, and the keeper of all keepers I have yet seen from Russia." Mr. Budd says that he took that apple to the Iowa winter horticultural meeting, jammed in a valise full of books, but it

arrived sound. It was then too hard and crude for eating. We saw just such apples in Russia, and carried them about with us to try and find out their names. The cut of this apple, herewith given, is not like the fruit grown by Mr. Underwood. It is from a drawing taken in the Department grounds by Mr. William Saunders.

(476) **ARKAD, ROTHER**—*Red Arcade*.

Dr. Regel says that the *Arcad Krasnui*, or *Red Arcade*, originated in the Government of Tchernigov; a very scarce apple, which he only saw from one garden there. He says, further, that it is doing well in his pomological garden at St. Petersburg, and speaks of its beauty and long keeping qualities; yet, strange enough, it is not on the list which Dr. Regel recommended to us for trial, when we saw him in 1882, nor even in his general catalogue, nor was it among the apples he sent to Mr. Budd in 1879. Dr. Regel may have lost it.

Mr. Saunders, at Washington, does not become enthusiastic over it, he merely says "good early apple, fully ripe 4th July." Had this apple come to us through Dr. Regel, from Tchernigov, it would have been named "Krasnui." I fear "Rother" suggests some other apple received through German sources.



ROSCHDESVENSKOE.

(477) **ROSCHDESTWENSKOE**—*Christ Birth Apple*.

This is a valuable winter apple in Russia, and I would like to hear of it as having been fruited from the Department catalogue. That grown by Ellwanger & Barry, of Rochester, was received from Moscow. Mr. Schroeder, of Moscow, described it to us as a medium-sized or largish apple of high conic form; good for table, and a pretty good keeper. Tree not hardy at Moscow, but valuable farther south.

Dr. Regel speaks of this as grown at Novgorod and to the south of Moscow. A green and afterwards a yellowish-green fruit, dull red in the sun. Flesh white, juicy and agreeably sour, with slight aftertaste. Ripe in October, and keeps all winter. It stood the severest winters until 1866, when young trees suffered. This tree will not endure -30 Reaumur, that is $35\frac{1}{2}^{\circ}$ below zero, Fahr. This apple may have taken its name from the village of Roschdestvenskago.

(481) MZENSKOE—*Mzensk*.

Dr. Regel says this was brought from Moscow, where it is known as the Sweet Mzensk—a medium-sized apple, and one of the sweetest. It ripens the middle of August. It stands the winters well; neither large nor small trees were injured during the severe winter of 1866-67.

(490) GLINZOWOE—*Clay*.

Mr. Spaulding says:—Like Duchess in tree and fruit, but it seems finer in grain, is less sharply acid, and a month later in season.

Dr. Regel speaks of this as growing in the neighborhood of St. Petersburg; also a few trees, received from some foreign source, are in a garden in Tavrigh. There is a very large old tree at St. Petersburg, in the garden of Mr. Glintz. It is a greenish-yellow apple, with a few dashes of red; hardly medium in size; flesh white, firm, juicy, vinous-acid, without aftertaste. A good dessert and kitchen apple, ripe the end of September. Tree hardy.

(502) RUSSISCHE RAMBOUR REINETTE—*Russian Rambour Queen*.

Mr. Tuttle says:—In form and color like Rhode Island Greening, but larger. Quality good. Season, early winter.

Dr. Regel speaks of this as growing in the Imperial Gardens at St. Petersburg. Samples were also sent to him by Baron Tiesenhause from Moscow. It is a flattish, conic apple of rather large size; a yellowish-green or pale yellow, sometimes with some red on the sunny side; tender, juicy and agreeably vinous-acid. It ripens about the 15th of September, and keeps till towards the close of winter.

(544) LAPOUCHOE NALIW—*Juicy Burr*.

At Mr. Underwood's a large striped apple like Duchess. Mr.

Perry says :—Tree and fruit much like Duchess, but a later keeper. Fruit of fair quality. Tree hardy and a strong grower., and bears fine specimens in nursery upon four-year old trees. Dr. Regel received it from Moscow.

(548) BOROWINKA LUGOUAJA—*Meadows Mushroom.*

“Large, aromatic and good,” says Mr. Saunders, at Washington.

(551) ARBUSOWSKOE—*Water-melon.*

Mr. Sias says :—A fruit nearly as large as Duchess, and looks like it ; fair in quality, but, so far, a shy bearer. The specimen I tasted was woolly. Mr. Tuttle says :—Fruit large, yellow, with red cheek ; mild sub-acid. Season, late fall. Mr. Perry says :—Above medium size, yellow, mottled and splashed with light and dark crimson stripes ; a rich, sprightly acid ; ripe 1st September. Tree hardy and a strong grower.

Dr. Regel quotes the opinion of Mr. Miller to show that this apple has been grown at Moscow and southwards, and has probably been named after Mr. Arbusov, a merchant. It is a large oblong apple, about the largest pictured in Dr. Regel's book. The skin is green, and afterwards yellowish-green, the larger part of the fruit being covered with a dull red, with darker marblings. The flesh is greenish-white, and of an agreeable acid taste. A large, fine looking dessert and cooking apple, which ripens in September and keeps till December. It has stood the test of hardiness very well with Dr. Regel. Only old trees suffered during the very severe winter of 1866-67.

(555) KRASS SLADKAJA—*Red Sweeting.*

Dr. Regel describes this from samples he saw in (or from) the Province of Riazan. A pale yellow, and on the sunny sides a dark carmine, with splashes. Flesh tender and sweet. It ripens in September and does not keep long.

(557) REVELSKAJA POLOSATOE—*Streaked Revel.*

Dr. Regel speaks of this as growing in St. Petersburg and in the Baltic Provinces. A yellowish-green apple, with dull red on the sunny side. Flesh white, tender, with an agreeably sweet taste. Use table and kitchen. Ripe from the last of September, and keeps till January.

(563) KRIMSKOO NALIWNOE—*Juicy Krimtarter.*

Mr. Tuttle says :—A large, yellow, mild sub-acid, fall apple of good quality.

(565) WERGUNOKS—*Worgunok.*

Dr. Regel says this grows in Moscow and southward. A small, greenish-yellow apple, with some dashings and stripings of red on the sunny side ; flesh white. A vinous-sweet apple, good for home use, especially for cooking. Ripe in October, and keeps till spring.

(568) MELONENAPFEL—*Melon Apple.*

Mr. Saunders says:—"A fruit of good flavor, somewhat tough in flesh, on August 16th." Judging by the woodcut traced by him, it seems to be an apple of good size.

This appears in Dr. Regel's book only as a synonym of the Prinzenapfel, which Dr. Regel states is growing in the Coast Provinces, especially about Riga. When fully ripe it is a pale lemon, with perhaps a little marbling of red on the sunny side. It seems to be above medium, or largish in size, more or less oblong, and flattened at both ends. The flesh is white, tender, very juicy, vinous-sweet, with a flavor somewhat like a pine-apple. This is a table apple of fine quality in September, and with good care may be kept in good condition till the New Year, and even some months later. Dr. Regel is not sure whether the apple grown about Riga is the same as that grown in Germany. The fruit seems much the same, but the Russian variety has proved hardier, and this has caused Dr. Regel to doubt their identity.

(578) BORESDFORFER, LEIPZIGER—*Leipzig Borsdorf.*

Mr. Sias says:—"One of the best in quality of the Russian apples, and one of the best keepers. It would seem, however, that it is a conic apple of no special beauty. The tree is hardy and a good bearer.

Dr. Regel says that young trees in nursery have suffered only in very severe winters, and that old trees in some cases had passed through such winters uninjured.

(579) TIERLANDISCHER SOMMER—*Summer Lowland.*

Mr. Tuttle says this resembles Duchess in appearance, but is of excellent quality. A very pleasant sub-acid. It is later in ripening, and should have been named Autumn Lowland. Mr. Tuttle speaks of the tree as very hardy and satisfactory.

(580) TIERLANDISCHER WINTER—*Winter Lowland.*

In Mr. Sias' orchard this is a small flat apple, striped with bright red, white in flesh, quite good, and probably a good keeper.

(584) ERDBEERAPFEL—*Red Calville.*

A hardy tree and an enormous bearer; fruit red, acid and high-flavored but rather small. Its lack of size prevents its being valuable. Webster. Why the word "Erdbeerapfel," or Strawberry apple should have been translated Red Calville, it is difficult to say.

Dr. Regel mentions this as coming from the Baltic Provinces, and states that neither young nor old trees had been injured.

Dr. Regel says that the Erdbeerapfel Lievlander is the Erdbeerapfel of Mr. Goeginger, of Riga. It is grown in the Baltic Provinces. It is a pale yellow apple, usually half of it covered with carmine stripes. The flesh is reddish, tender, juicy, with an agreeable aftertaste. A very excellent autumn table apple; in season from September to December.

(585) ZUSOWS WINTERAPFEL—*Zusoff's Winter.*

Mr. Tuttle tells me that he has two varieties under this name—one a small bright red fall apple, the other larger and a better keeper. He would not recommend them without further trial.

Dr. Regel mentions Jussow's Winterapfel as received from Wagner, of Riga. It is grown in the Coast Provinces. It is sensitive to cold winters, and in 1866-67 young trees in nursery, and older trees were killed.

(587) ENGLISCHER PEPPING—*English Pippin.*

See 161 Longfield.

Dr. Regel mentions this as from the Baltic Provinces. It had proved quite hardy with him. He had no thought of its being Longfield.

(592) ARKAD DLIMUI—*Long Arcade.*

"A small or medium-sized fruit, much like Red Astrachan in form and color; flesh white, and fine in grain, and a mild, pleasant acid. Season, late fall or early winter." Such is the opinion of Mr. Tuttle, who speaks of the tree as very hardy, a medium grower and an early bearer.

(597) PESOLSCHNAJA STEKLIANKA—*Glassy Sand.*

A small and very conic fruit of medium quality, basin not wrinkled, as fruited by Mr. Sias. As described by Mr. Schroeder, it is a fall, sour Greening. That grown by Mr. Sias may be true to name; I cannot be sure.

Dr. Regel mentions this as a sour apple, ripe end of September. Skin as though covered with sand. Tree has stood pretty well at Moscow till 1866. In 1866-67 it was injured. Size and keeping qualities not stated.

(599) ROMENSKOE—*Omensk.*

■ Dr. Regel received the Romnenskoe from Kraznoglazov, of Moscow, whence it was brought from the town of Romna. A high apple, dark red, with a pleasant, acid taste. Ripe about the 1st of October. The tree is fairly hardy at St. Petersburg.

(600) DLIMOE—*Long Apple*.

"This evidently gets its name from the tree, which has few and long branches, thickly studded with short spurs, each crowned in season with a rosette of beautiful little red apples of good quality," says Mr. Webster.

Dr. Regel says a very hardy tree. It did not suffer at all in 1866-67 nor previously.

(864) ARKAD DUIMTSCHATAJA—*Smoky Arcade*.

Dr. Regel says this is grown about Moscow, and in the provinces to the south of it. A small, greenish-yellow apple, with bright red on the sunny side; not perfumed, and often a little bitter. It ripens as early as the middle of August, and does not keep long. People are fond of eating it when just picked off the tree. This tree is not apt to be injured by cold, although $36\frac{1}{2}^{\circ}$ below zero (Fah.) is not good for it. In Dr. Regel's garden, in 1866-67, most of the trees not covered with snow were badly injured.

(874) BOROWINKA SLADKAJA—*Sweet Mushroom*.

"A good-flavored sweet apple of good size and rather tough flesh," says Mr. Saunders.

Dr. Regel speaks of this as growing in the garden of Mr. Ruimin, in the Province of Riazan, and also in the Emperor's garden at Peterhof. A medium or small-sized apple, greenish-yellow, with some yellowish-red on the sunny side, sometimes with some stripes. Flesh greenish-white, tender, juicy, sweet, with good aftertaste. It ripens in September, and keeps in a good cellar till the New Year.

This is not a Borovinka. It is more like an *Arcade*; just such an apple as we do not want.

(965) GRUSCHEFFKA SLADKAJA—*Sweet Pear*.

"Not a sweet, but a fine sub-acid apple of the Yellow Transparent class," says Mr. Webster. I saw it at Mr. Spaulding's, probably the same fruit.

(966) TUCHERNOKRASNOE—*Red-black*.

Mr. Sias says:—One of the most showy and beautiful of my Russian varieties, and one of the largest. Color nearly black where well exposed to the sun; a little coarse in texture, but a good market apple. Season probably October to November.

Dr. Regel received this from the Penza nurseries. Young trees in some cases proved hardy, in others not.

(970) TUHUGINKA SELOMAJA—*Green Citron*.

Medium in size, shy bearer, not profitable.—*Sias*.

(971) WASSILLI WELIKUI—*Vasilis Largest*.

This belongs to the same family as *Green Streaked*, *Zolotoreff* and *Turnipy Juicy*. Mr. Tuttle says, it is a little more like *Alexander* in color, and in the appearance of the tree, about the same quality as the others, and, like them, an early bearer of large, showy, fall market apples. Mr. Perry says:—A large, round, red-striped apple, coarse in flesh and of fair quality. A good market apple; season, October. Tree hardy and a good grower.

Dr. Regel received this from Penza. The word *Vasilui* means *Basil's*.

(973) STEKLIANNOE DUSCHISSTOE—*Shining Aromatic*.

"Fruit of no value here," says Mr. Webster. Mr. Tuttle says:—An acid fruit, rather fine in grain and with some flavor; not bad, but we have too many such apples.

(975) TETNEKRASNOE—*Red Teat*.

"This tree," says Mr. Webster, "is a wonderful bearer, and the fruit, if judiciously thinned, large to very large, but of fair quality and flavor only; September." It is like Mr. Webster's *Zolotoreff*, but not so good in quality, nor does it seem to keep as long.

(978) BEEL SOLOTOFSKAJA—*Golden White*.

Dr. Hoskins pronounces this the best late fall apple among the Russians for market purposes; *St. Peter* the best early fall. He describes it as medium in size, with no cavity; in color a dull pale green, turning to a dull yellow, with a few pale red stripes in the sun; many specimens have no red at all. The flesh is soft, a little coarse; flavor, a mild sub-acid. Mr. R. Brodie, of *Coteau St. Pierre*, exhibited in *Montreal* last September a plate which seemed of this variety. He has five trees of it, planted about five years, and the trees seem extra hardy, and good young bearers. The samples shown were a good deal above medium size, and some samples grown by Mr. Brodie have been very nearly as large as *Alexander*.

Dr. Regel received this from Penza.

(981) BEELOWOE SCHOLTO SEROE—*White Russet*.

Mr. Tuttle says:—A large yellow apple, with a red cheek; a little russety around the stem. Quality good. An early and abundant bearer; season, late fall.

(983) ASTRACHANSKOE SKWASNOE—*Red Astrachan*.

"Not Red Astrachan," says Mr. Spaulding. "It should have been translated 'Transparent Astrachan.'"

Dr. Regel received it from Penza.

(984) ANIS KURSKI—*Koursk's Anisette*.

I saw this at Mr. Underwood's—a small green fruit without any basin, and very wrinkled near the calyx; not of *Anis* type at all.

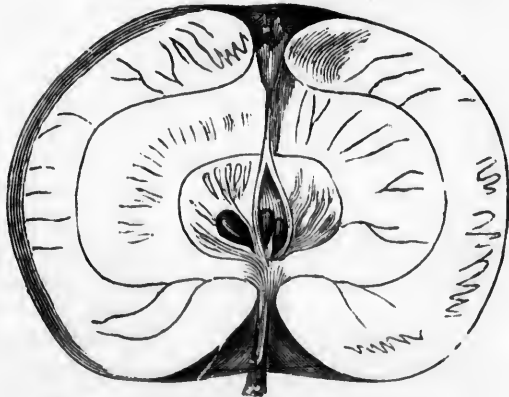
Mr. Sias says that it resembles Russian Green, is of fine quality, and keeps pretty well for a fall fruit. Evidently not the same apple as Mr. Underwood's.

Dr. Regel received this from Penza, but does not describe it.

(985) ANIS KRASNUI—*Red Anisette*.

A true variety of the Anis. When I saw it in August, in Mr. Sias orchard, it was not fully colored, and in fact it scarcely seems to have any more color than the Yellow Anis growing alongside of it. This is not noted by Dr. Regel as the same as the Pink Anis.

Anis Alui (Pink Anis) is the apple which we have noted in Russia as growing in such quantity from Kazan to Saratov. Dr. Regel describes it from samples from the Province of Kazan, as a medium-sized flattish apple, dark carmine, with some dingy yellow on the shady side. Flesh greenish-white, very juicy, sour, with a strong bitter aftertaste. It ripens in September, and keeps till January, but on account of its bitter taste is fit only for cooking.



ANIS ALUI.

When on the Volga I tasted a good many apples of this variety,

the most prematurely ripened specimens I could find. Mr. Budd suspected no bitter aftertaste, neither did I.

(987) ANIS SCHALTUI—*Yellow Anisette*.

This also is a true Anis. When I tasted it in Mr. Sias' orchard, it was hard in texture and a crude acid. But Mr. Sias says that it does not keep past September. These were top-grafted on Crab. Mr. Sias tells me that he has found, in his neighborhood, trees grafted on apple roots, planted in 1881. The trees seemed in perfect health, and the fruit about a third larger than that grown on Crab. The fruit, however, ripened in the fall, and did not keep. This and the Red Anis above noted, and 382 Green Russian and 413 Skrischapel, or Cross apple, are true varieties of the Anis, and may prove of great value in the far north.

(988) ANANASNOE—*Pine-apple*.

Like Yellow Transparent at Mr. Underwood's.

DR. REGEL'S SELECT LISTS.

Our object must be to find out as soon as possible the few best varieties in this long catalogue.

* Dr. Regel in 1882 gave us as the result of his experience to date a list of ten varieties, which were as follows:—236 Antonovka, 252 Aport, 245 Borovinka, 157 Belui Naliv, 182 Red Summer Calville, 322 Koritsnevoe (Zimmetapfel), 375 Koritsnevoe Ananasnoe, 266 Polosatoe Novgorodskoe, 366 Skvosnoi Naliv (not in Department catalogue), 413 Skrischapel, and 230 Titovka:

Dr. Regel also noted a longer list, which is as follows:—185 Anisovka, 184 Arabskoe, 203 Arkad, 188 Arkad Joltui, Berezinskoe (not in Department catalogue), 122 Borsdorfer Reveler, 248 Beel, Vinnoe Zelonoe (not in Department catalogue), 380 Gruscheffka Moskovskaya, 338 Gruscheffka Revelskaya, Zelonka (not in Department catalogue), 260 Semnie Polosatoe, 231 Zolotoi Arkad, 268 Kremerskoe, 197 Krivososnoe, 368 Miron Sacharmui, 234 Muscatelnoe, Naslednik Nikolai Alexandrovitch (not in Department catalogue), 372 Petrovskoe, Champagnerapfel (not in Department catalogue), 246 Plodovitka, 332 Plodovitka Rannaya, 164 Polosatoe Heidorn, Revelskoe Golubinoe, or Reveler Taubenapfel (not in Department catalogue), 204 Rubets, 226 Rubets Belui, 210 Rubets

* NOTE.—The numbers referred to in this and the following list are those of the Department catalogue.

Vinogradni, 217 Sacharnoe, 207 Stupka, Charlamowskoe (262 of Department catalogue), 407 Tchernoe Derevo, and 342 Charlottenthaler Joltoe.

ON OTHER IMPORTATIONS FROM ST. PETERSBURG.

Several importations besides that of the Department have been received from Dr. Regel. In some instances these have been sent out by number. I must, therefore, call attention to certain instances where the numbering in these collections does not agree with that of the Department list. Prof. Budd, of Ames, Iowa, received from Dr. Regel in March, 1879, seventy-two varieties. Of these, fourteen do not appear in the Department list. Of that importation, No. 151, Miron Sacharni, is 368 of the Department; 257, Arabskoe, is 184 of the Department. No. 277, Swinzovka, is Wargul of the Department, whereas the Svinzoffka of the Department is 362; 379, Gruscheffka Revelskaya, is 338 of the Department. Otherwise, numbers agree.

However, I must note that in the catalogue of Dr. Regel of 1882 Miron Sacharni is 368, yet the mistake was not made by Mr. Budd, as the numbers run from 1 upwards. Number 277 is the Svinets of Dr. Regel's catalogue, but is 426 of the Department catalogue, otherwise the numbering of Dr. Regel's catalogue of 1882 and Mr. Budd's collection agree.

As to the numbering of Dr. Regel's catalogue of 1882, it agrees with that of the Department, with the following exceptions:—No. 257, Arabskoe is 184 of the Department; No. 15 is Gruscheffka Nalivnaya, whereas No. 15 of the Department is Sussapfel von Toenarius; 379 Gruscheffka Revelskaya is 338 of the Department; 277, Svinets, is Wargul of the Department; 258 Charlamovskoe, is 262 of the Department. I think this will serve to show that these apples should not be propagated by number.

In conclusion, I would urge that a systematic effort be made to reap the harvest of information which will be obtainable next autumn. Mr. Wm. Saunders tells me that of the 252 kinds received all grew, that scions of all were distributed, that every available scion was cut for six years, and that in one year over 100,000 packets were sent out by the Department.

Let all throughout the country who have tested these fruits, send notes to the horticultural societies of their respective States, and thus tend to bring facts to a focus on this important question.

