

S. CHAPMAN (E.N.) *Per*

is of

Caswell, Mack & Co

tho. J. M. Callan

ESSAY

ON THE

PYROPHOSPHATE OF IRON,

BY

E. N. CHAPMAN, M.D.,

PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA, PROFESSOR OF CLINICAL OBSTETRICS,
AND PHYSICIAN IN THE LONG ISLAND COLLEGE HOSPITAL.

WITH NOTICES

OF ITS

COMBINATIONS AND FORMS OF PREPARATIONS.

&c., &c.

BY CASWELL, MACK & CO.,

FAMILY AND DISPENSING CHEMISTS,

UNDER FIFTH AVENUE HOTEL,
NEW-YORK CITY.



No. 132 THAMES STREET,
NEWPORT, R. I.

NEW-YORK:

JOHN A. GRAY & GREEN, PRINTERS, STEREOTYPERS, AND BINDERS,
FIRE-PROOF BUILDINGS,
CORNER OF FRANKFORT AND JACOB STREETS.

1865.

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JAMES N. CALLAN, Druggist and Apothecary,
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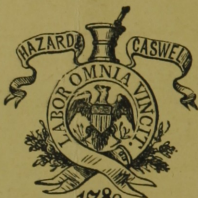
HAZARD & CASWELL'S

PURE AND GENUINE

LIGHT STRAW-COLORED MEDICINAL

COD LIVER OIL.

PREPARED
ON THE SEA-SHORE
OF
BLOCK ISLAND
AND
CAPE COD,



ESTABLISHED 1780. AT NEWPORT, R. I.

BY OUR
MR. CASWELL,
PERSONALLY,
FROM
Fresh and Selected Livers
ONLY.

THE universal demand for an article of Cod Liver Oil that could be depended upon as *strictly pure, and scientifically prepared*, having been long felt by the Medical Profession, we were induced to undertake its manufacture at the FISHING STATIONS, where the fish are brought to land every few hours, and the livers, consequently, are in great perfection. Its manufacture is personally superintended by our Mr. Caswell, and every gallon made is closely scrutinized.

We therefore combine the advantages of using perfectly fresh and healthy livers, with scientific and careful preparation, and feel assured that practitioner and patient alike, will hail this accession to the list of reliable remedies with satisfaction.

It is a well-known fact, that nearly all the Oil brought to market, even the light-colored, has been prepared by fishermen themselves, using all livers indiscriminately in its preparation, while a large proportion of the livers, even in a fresh state, are diseased, and *are always rejected by us*. They generally also keep the livers for one or more days, until partial decomposition occurs, and then, if the result is sour, they counteract it by the addition of potash or soda. These differences, while they are of the utmost importance, cannot be detected, except by the most practised observer, without chemical analysis. This is the history of nearly all the light-colored Oil in market, and is even more true of dark Oils; therefore, the only possible safeguard to the consumer is to obtain Oil prepared under the personal supervision of a chemist.

No argument is needed to prove the value of COD LIVER OIL, in its pure state, as a remedy. The fact is so generally admitted, as to render such a work unnecessary; nor is it necessary to point out the evidence of the fact that the Brown, or Nauseous Oil, is inferior; to be simply informed that the color results from the decay of the Hepatic tissues and fluids, and from exposure to heat or air, will be sufficient for the patient.

As a remedy for the class of disease for which it is recommended, it has no rival. Its efficacy probably depends upon—

1st. Its highly nutritive qualities; its preëminence as a fattening agent, developing the muscular strength, and increasing the quantity and quality of blood; stimulating the action of the liver, and increasing the power of digestion.

2d. The combined action of the several medicinal agents which exist in the Oil, in a state of combination, and which act more efficiently than when artificially combined—among which Iodine, Chlorine, Bromine, Phosphorus, Magnesia, Lime, Soda, Iron, and the "Gaduin" of De Jongh, are the most conspicuous.

The result is, that while the NUTRITIVE PROCESS is going on, fortifying the system, and strengthening the whole organization, the MEDICINAL PROPERTIES are removing from the system the accumulated tuberculous matter, if any, and preventing its formation, if not already existing.

THE PYROPHOSPHATE OF IRON.

THE following Essay on the therapeutic uses and effects of Pyrophosphate of Iron (which is the Salt used in the manufacture of CASWELL, MACK & Co.'s FERRO-PHOSPHORATED ELIXIR OF CALISAYA) was communicated by Dr. E. N. Chapman, Professor of Therapeutics and Materia Medica, of Clinical Obstetrics, and Physician in the Long Island College Hospital, and published in the *Boston Medical and Surgical Journal*.

The pyrophosphate of iron affords certain marked advantages over the preparations of iron hitherto in use. Its tastelessness, in solution with sugar, and elegant appearance, in our day, when the nauseous doses of the older practitioners will not be tolerated, is an important item in the case of children, or adults even, when the employment of a remedy is demanded for a period of time. There is every reason for presenting our medicines in as palatable and pleasant a form as possible. In addition, there are many persons of a nervous, delicate organization, particularly females, who cannot take the ordinary preparations of iron. They disorder the stomach—in their language are too heating—and thus not only fail to be assimilated, but, by perverting the gastric and intestinal secretions, seriously interfere with the digestion. Hence, instead of enriching the blood by new materials, we are merely cutting off the original supply, imperfect as it is, and making the gastric surfaces a centre of morbid irritation. We observe a similar but more complete abeyance of the nutritive functions, in most patients much reduced by an exhausting disease. However much iron may be indicated, it cannot be borne, much less appropriated by the absorbents, until the digestion is restored by bitters and stimulants.

A marked peculiarity in the pyrophosphate of iron is the fact that it will, scarcely ever, in any of these cases disagree, and very frequently patients who cannot tolerate the ordinary forms of iron, will bear this well, and receive great benefit from its use. The new salt will supply the iron to the blood-globules promptly.

It has, however, another and more important property, which has entirely escaped attention; that adds new virtues to the iron and bestows on this special compound advantages possessed by none other in the *Materia Medica*. These arise from the pyrophosphoric acid. This acid, or the element, phosphorus—which, has not been definitely determined by chemists—exists alone in a free state in the great ganglionic nervous centres. According to Frémy, the phosphorus is combined with the brain-fat, forming what he calls the oleo-phosphoric acid.

Phosphorus is regarded by therapeutical writers as a cerebral stimulant, exalting nerve-power directly, but the action of the heart indirectly, and only in a moderate degree beyond the normal tension. Of all the organs, the reproductive are most sensibly affected; a fact satisfactorily accounted for in the male by our knowing that the semen contains, according to Kölliker, over two per cent of a phosphoretted fat. As throughout nature nothing is without a use, and every element has an importance, though we may fail to discover it; so we may safely conclude that phosphorus must exist in the nervous centres and the spermatic fluid as an integral constituent of their chemical composition. Probably it plays an important part in the normal excitability, and is intimately connected with the manifestation of mind, and the generation of the nervous influence.

I think phosphoric acid may not be separated from its compounds, and thus the ganglionic nervous centres be wanting in their normal stimulus. Hence would arise many nervous and neuralgic diseases, and nervous complications in many forms of debility. It is necessary for us to pass the phosphoric acid into the blood. This we can only do by giving it in a saline state, with a base that would be assimilated, and thus set it free. This is accomplished by the iron, which we know, in ordinary medicinal doses, is used up in the blood; in other words, is appropriated by the hæmatin, and cannot be detected by any

tests. It is a natural constituent in the red globules, and, consequently, not being foreign to the body, behaves precisely as any other elementary principles that form its structure. Strictly speaking, it is a food, and must be supplied as much as starch, sugar, oils, and flesh.

It is the experience of most practical men that far greater benefit arises from the use of cod-liver oil than any other oil in a variety of diseases; particularly such as are marked by a defective assimilation and a cachectic and depraved nutrition. Most patients, though they may derive no permanent benefit from its employment, improve in appearance, and gain, often in a remarkable degree, in weight. This is, I may say, universal when their digestive powers are sufficiently strong to appropriate the oil. Its manifest good effects have been ascribed to the iodine which it contains, though this exists in an infinitesimal ratio, much too small to act medicinally, according to our ideas of the dose of this element requisite to affect the system. The phosphorus and phosphoric acid, present in a much larger proportion, have been entirely overlooked; whereas they probably constitute the main difference between it and ordinary oils. This may be more apparent by comparing the following analysis:

COD-LIVER OIL.

| | |
|------------------|-----------------------|
| | Pale. |
| Iodine, | $\frac{374}{1000000}$ |
| Phosphoric Acid, | $\frac{913}{1000000}$ |
| Phosphorus, | $\frac{212}{1000000}$ |

We thus see that phosphorus and phosphoric acid together, are found in a greater proportion than 1 part to a 1000, and that this much exceeds that of iodine. Since the proportion of phosphorus in the nerve-centres and in the protein-bodies of the cells is small; even this amount, apparently so trivial, would be ample to supply their deficiencies and thus correct faults in nutrition.

HAZARD AND CASWELL'S

PURE COD LIVER OIL.

This Oil is manufactured from selected and healthy livers on the sea-coast of New-England.

It is obtained at a low temperature, and can be retained by the most

delicate stomach. It is free from the nauseous fishy taste of the usual article, and is pronounced by those who have taken it as the PUREST AND SWEETEST COD LIVER OIL IN THE WORLD.

CASWELL, MACK & Co., Family Chemists,
New-York City and Newport, R. I.

Whenever the blood becomes thin and watery, there are, almost invariably, troublesome attendant symptoms, seriously retarding the restoration of the patient to health. In all, there will be a lack of nerve-power, from the hydræmic state of the circulation. Hence, could we, temporarily, augment the stimulating properties of the blood, whilst we are administering the iron, we should prepare the way and present the conditions required for its assimilation, which otherwise might be impossible. Experience has taught most physicians this practical fact, and the indications have usually been fulfilled by the simultaneous use of wine and iron. We have found the pyrophosphate singularly appropriate under these circumstances, and as superior as a natural excitant must ever be over any substitute we may devise. Persons who have been over-worked by mental application and prostrated by disquietude and care, or persons who have a shattered nerve-power from some constant source of bodily suffering, have a thousand anomalous symptoms dependent on an imperfectly generated and distributed nerve-power; such as wakefulness, trembling, spasmodic movements, palpitations, etc. For this class of symptoms, the pyrophosphate of iron often affords relief in two or three days; and thus prepares the way for the ultimate cure that may be expected from the martial salts. Many times, patients have expressed wonder at the calming and tranquillizing effects of the medicine; not only in mere functional aberrations and irregularities, but also in cases where actual disease existed in the nerve-centres. In both instances, the stimulation is immediate and transient, and can be of no avail, excepting by removing irregular nervous distribution; whilst the iron is appropriated more readily by the organic forces now freed from a great source of disorder.

A lady in Brooklyn, with spinal meningitis in the cervical region, had great feebleness and trembling, but especially paroxysms of an asthmatic shortness of breath, that greatly interfered with the aëration of the blood. The first trial with this remedy removed, in a few days, the severity of the symptoms; so much so, that the patient was enabled to leave her bed. Her breathing was hurried only on exertion. The remedy becoming less potent in subsequent attacks, and then eventually quite useless, was abandoned, and other means were resorted to with the same ill success. The patient, after being under my care, without benefit, for three months, moved into the country, and nothing has been heard of her since. In other instances of anæmia, where time showed an organic basis for the nervousness, a temporary advantage has been gained by this form of iron; showing the stimulation afforded by it to the brain and spinal marrow. This stimulation, although only temporary, is of permanent value in all functional disorders of the nerve-power; where, in the mean time, we can rectify the states on which they are dependent. This is shown markedly in anæmia and chorea united.

A young girl, aged 16, presented herself at the Hospital Clinique with the symptoms of anæmia, amenorrhœa, and chorea. She had been unwell at two periods, four months ago; but since then her turns had failed, and she had become affected by these involuntary motions, which were now so great and uncontrollable as nearly to forbid her standing or walking. She was ordered laxatives for the constipation, which was obstinate; and the pyrophosphate of iron in five-grain doses, after each meal. This was the only treatment, from first to last. Her appetite, which had been capricious and uncertain, returned; the torpor of the bowels became less obstinate, and the involuntary jerking of the muscles subsided to such a degree that the girl in two weeks walked to the hospital unattended. In six weeks the menses returned; when the choreic movements, which had become moderate, were greatly increased during their continuance. In the interval, there was a continuous improvement, as the color of the face returned; but only a slight exacerbation during the next period. In three months the restoration to health was perfect. Perhaps the common

forms of iron, as I have seen in two or three instances, might have been efficacious and attended with success; but I am confident the first stage of cure would have been more tedious, from the constant muscular action which exhausts the patient. By the tranquillizing power of the phosphoric acid, the movements were moderated; the patient was enabled to fall asleep readily, which she could not do before, and the assimilation was strengthened, so that food and iron rapidly improved the blood.

In one other case of chorea and anæmia, the same happy result followed this course of treatment.

In palpitation of the heart in anæmic subjects, I have seen many instances of the power of this remedy in removing this symptom long before the blood was restored to its normal condition. But palpitation, when not due to impoverished blood entirely, may be, oftentimes, equally amenable to this remedy.

A lady of Brooklyn, 45 years of age, feeble, emaciated, and the subject of paralysis agitans for many years, was tormented by an aggravated form of palpitation of the heart. This, at times, was very severe and persistent, and never benefited by a variety of medicines prescribed by different physicians. The cause of this irregular and tumultuous action was evidently due to a defect in the nervous influence. The pyrophosphate of iron gave her the most prompt and perfect relief, so much so, that she sent a person affected with this disease to my office, to obtain the same prescription. In this case, also, the result was equally satisfactory.

In even more grave disorders of the heart, the value of this remedy has been signally shown.

A young gentleman, 23 years of age, came to my office, suffering fearfully from angina pectoris. He was first attacked five years previously, whilst in the country, and was obliged to give up his employment and travel for his health. After six months' respite, he obtained some relief, but from that time he had been followed by returns of the paroxysms at frequent intervals, though these were less severe; until of late when they had become more grave than ever before. There was a sense of agony; a fear of impending death; and he was conscious of an irregular, tumultuous, labored throbbing of his heart,

even in sleep, which was fitful, unrefreshing, and disturbed by frightful dreams. His countenance was haggard, and bespoke the utmost dejection; and he felt as though his chest was tightly bound by a cord, and as if each pulsation of his heart would be the last.

On examination, no organic disease could be discovered. The heart contracted tumultuously—by fits and starts—with a rolling, tumbling, uncertain action, but spasmodically, and with a sharp, metallic ring. The pulse was irregular and intermittent, and the volume of blood in the artery was uncertain and unequal.

Latterly the young man had been employed in a wholesale dry goods store, in New-York, and had passed most of the day on an underground floor. As he appeared to suffer from considerable gastric and hepatic disorder, two cathartic doses of blue mass were given, and followed by vegetable bitters and antacids. These failing, he was ordered assafoetida, valerian, camphor, etc., with the like unsuccessful result. At this time, two weeks from his first visit, he was so much worse, that he fell on the floor insensible one afternoon after returning home from his business. He was now directed to take the pyrophosphate of iron, in five-grain doses, three times daily, and to omit all other medicines whatsoever. The patient remained under the same circumstances as to air, diet, exercise, etc., and still persisted, from a fear of losing his situation, in going to the store every day. There was a sensible amelioration in the severity of his symptoms almost immediately; and this became very apparent in four or five days. Insensibly he began to sleep with tolerable comfort, and to experience a more regular and equable action of the heart. At times, he would lose a sense of his condition, which ever had followed him like a malignant spirit. The change in his countenance, in the state of his pulse, and rhythm of his heart, as discovered by auscultation, was remarkable. The improvement was steady but rapid, until the restoration to health was complete; which took place in four weeks, without any change in, or addition to, the prescription. Now, after an interval of more than two years, he remains in perfect health, and was enabled to rush to arms, with thousands of other compatriots, for the defence of the old flag and

the Constitution of our fathers. He endured three months' service as readily as the others. Since his return, I found, on examination, that his heart acts perfectly and normally.

A young married woman, never pregnant, 34 years of age, was admitted into the hospital a year since. She was thought by her physicians to have an aggravated, organic heart disease, that had nearly run its course. Her present illness dated back some eight months, and apparently commenced with gastric and hepatic disorder; which gradually induced despondency, nervousness, and palpitation of the heart. She had a sallow complexion, loaded tongue, vomiting, which was frequent, of a bitter matter; a strong, tumultuous, and irregular action of the heart, with a metallic ring; a sense of great suffering and a fear of impending death. She was gloomy, hopeless, hysterical, with many shifting neuralgic pains. Shortly before her admission she lost the use of her lower extremities—could not stand, though when in bed she could draw up her feet, but with great effort and difficulty. I could discover in her case no evidences of organic disease, and was inclined to think that when the functional disorders of the liver and digestive organs were corrected, it would be possible to mitigate, at least, the irregular action of the nervous system, which was supposed to be mostly of a hysterical character. A variety of means, such as blue mass, bismuth, creosote, quinine and bitters were employed for two weeks or more, to correct the state of the stomach, check the vomiting, and restore the digestion—which objects were partially attained; but the nerve-aberrations continued the same as at first. The pyrophosphate was now given conjointly with vegetable bitters and good diet. The same happy result followed as in the last case. Gradually the use of her limbs, and the regular, natural action of her heart were regained, though from the hysterical element in her case, the restoration to health was not as perfect or permanent as that of the young man just mentioned. She dwelt constantly on her troubles; and being much alone and neglectful of exercise, she relapsed, six months after dismissal, and was again treated in the same way, and in three weeks regained her usual health. During the present month I was called to her house, and found her with the old symptoms, which she said had been coming on ever since the

absence of her husband in the army. She requested the same medicine which had, on other occasions, been followed by such marked relief to her symptoms. Its power was equally apparent as before.

For all the varied and anomalous symptoms of hysterical patients, which are usually some phase of irregular distribution of the nervous influence, the pyrophosphate acts with singular efficiency; diffusing and equalizing the nerve-power, and thus secondarily restoring a more active capillary circulation and a more healthful play of all the functions. Cases illustrative of this point are unnecessary in the milder forms of nervous disease, since the claims of our remedy are sufficiently vindicated in the severer ones hitherto mentioned.

The pyrophosphate of iron has another property scarcely to be anticipated; and one we should never discover except by actual observation. All of the common preparations of iron are apt to oppress the stomach, coat the tongue, and destroy the appetite; especially when the patient is much debilitated. Many, from a delicate, sensitive organization, cannot, under any circumstances, take iron with profit, it being, in their language, too heating. The pyrophosphate is friendly to the stomach, will never cause any irritation of the gastric surfaces; and, to our knowledge, has never disagreed with any patient, however incompatible the other forms may have been. Besides, it appears to possess a tonic power, and will restore the appetite and digestion after the failure of bitters, quinine, wine, etc., often in extreme cases of anæmia, amenorrhœa, and chlorosis, as we have witnessed in many instances in our obstetric clinique. It seemed to afford just the grade of stimulus required by the stomach; and the improvement, thus initiated, continued without interruption, under this single remedy, to the complete cure of the patients. This acceptability, friendliness, corrigent, and roborant action of this form of iron on the digestive organs is a valuable peculiarity, which renders it, in many persons and in many states of disease, superior to all others, and perhaps to any drug whatsoever. Besides, its tastelessness, when dissolved in syrup, is a great recommendation in this age of sugar, when patients desire to die *sweetly*, and will not endure any thing nauseous or unpleasant, though death be knocking at

the door. This we might expect in children who *bring* up their parents to a tolerably high state of discipline, and issue their orders of command from the cabinet councils of the nursery. We medical men, taking the world as we find it, are obliged to render our doses as palatable as possible for babies, both great and small. This object, without detriment in the choice of our means, is singularly and notably attained by the use of the pyrophosphate of iron.

CASWELL, MACK & CO.'S

FERRO-PHOSPHORATED ELIXIR OF CALISAYA BARK.

The FERRO-PHOSPHORATED ELIXIR OF CALISAYA BARK of CASWELL, MACK & Co., contains one grain of the Pyrophosphate of Iron to one tea-spoonful of the Elixir.

It is entirely free from the nauseous, inky taste of iron. Combined with aromatics, the Salt and the Calisaya are blended in a beautiful transparent amber-colored cordial very pleasant to the taste. It is readily administered to infants and children, and is quite acceptable to the most fastidious taste and delicate stomach.

The Elixir is furnished in bottles containing one pint; or it can be furnished in bulk in large bottles containing five pints, or by the gallon in demijohns, and sent by express to any part of the country.

Caswell, Mack & Co. ship large quantities of the Elixir to San Francisco, New-Orleans, Montreal, Boston, Newbern, Port Royal, and dispense it in New-York from their counter. In all these places the medical profession indorse it as the most elegant and efficient of all tonics.

In miasmatic districts, such as Newbern and Port Royal, its use has been perfectly successful against intermittent and yellow fever; indeed it can be confidently recommended as a prophylactic against these diseases.

As a remedy for Nervous and Mental Prostration, Dyspepsia, Anæmia, Amenorrhœa, Dysmenorrhœa, Chorea, Angina Pectoris, Neuralgia, Chlorosis, Leucorrhœa, Wakefulness, Disquietude of Mind, Palpitation of the Heart, it has been found eminently serviceable and successful.

DRAGEES OF PYROPHOSPHATE
OF
IRON AND CALISAYA.

For the convenience of those living in remote districts or for persons travelling, where the bulkiness of the Ferro-Phosphorated Elixir would be seriously inconvenient, Caswell, Mack & Co., manufacture a pill of the Pyrophosphate of Iron, which is coated so thoroughly with gelatine and sugar, as to be unaffected by the atmosphere, and rendered perfectly palatable. It contains three grains.

It can be sent by mail or can be easily carried.

DRAGEES OF SIMPLE PYROPHOSPHATE OF IRON.

We also manufacture a pill of the simple Pyrophosphate of Iron, each pill containing three grains of the salt.

SIMPLE ELIXIR OF CALISAYA BARK.

Where the Iron may be contra-indicated, and the simple effects of the Calisaya required, the most eminent physicians now prescribe CASWELL, MACK & Co.'s SIMPLE ELIXIR OF CALISAYA BARK.

The CALISAYA is combined with Aromatics, and made into a very pleasant ruby-colored cordial.

ELIXIR OF VALERIANATE OF AMMONIA.

CASWELL, MACK & Co. manufacture a beautiful and pleasant preparation of Valerianate of Ammonia wherein the unpleasant odor of the drug is overcome without injury to its therapeutic qualities.

For Nervous Headache and Excitability and Neuralgia, the Elixir of Valerianate of Ammonia is unequalled as a remedy.

ELIXIR OF LUPULINE.

CASWELL, MACK & Co. present the virtues of Lupuline in pleasant combination with Aromatics in their Elixir of Lupuline. It has the same properties as the Elixir of Valerianate of Ammonia, and can be administered in cases where the latter is not desired.

CASWELL, MACK & CO.,

LATE

HAZARD & CASWELL,

FAMILY CHEMISTS,

FIFTH AVENUE, BROADWAY AND TWENTY-FOURTH STREET,

(FIFTH AVENUE HOTEL,) NEW-YORK CITY,

AND

No. 132 THAMES STREET, NEWPORT, R. I.

FOR CONSUMPTION, it is the only reliable remedy known. It has, in thousands of instances, restored patients that seemed past hope of recovery; and in tens of thousands, has arrested the disease in its primary stages, and restored the patient to robust health.

BRONCHITIS.—Its effect in this troublesome disease is very marked, although it is necessary to persist in its use for a considerable length of time.

FEMALE DEBILITY.—To sustain and augment the vital forces; to make new, rich, and pure blood; to build up the nervous system; to restore energy to the mind and body—nothing can be better adapted than this Oil.

TESTIMONIALS.

From Professor A. A. HAYES, State Assayer of Mass.

GENTLEMEN: I have subjected to chemical analysis the Cod Liver Oil prepared by Messrs. Hazard & Caswell, of Newport, R. I. It proves to contain, unaltered, the Iodic compounds essential to efficiency of action; and in comparison with the specimens I have seen of foreign or domestic origin, it takes the highest place.

The importance of having a reliable source from which this valuable remedy, in a state of purity, can be obtained, leads me to recommend, with confidence, this excellent article.

Respectfully,

A. A. HAYES, M.D., *Assayer to State of Massachusetts.*

16 Boylston St., Boston, Nov. 14, 1856.

DEAR SIR: We have used the Straw-Colored Cod Liver Oil prepared by you, and have found it the most pure and reliable article which has come to our notice. Its purity and even quality will recommend it to the confidence of every physician who will examine and compare it with any other.

JAS. V. TURNER & SON.

MESSRS. HAZARD & CASWELL: I have carefully examined your Cod Liver Oil, and find it to be the best possible product from fresh, healthy livers. Your facilities for the production of an excellent article are such that I doubt not the profession can rely, with perfect confidence, upon you for a supply of true Oil, of uniform quality.

THEO. C. DUNN, M.D.

DEAR SIR: I have examined with care the article of Cod Liver Oil put up by you, and find it in every way of unexceptionable quality.

DAVID KING, M.D.

DEAR SIR: Your Cod Liver Oil exhibits, in a remarkable degree, all the peculiar sensible properties of the genuine article. I consider it the best possible preparation of this invaluable remedy.

W. ARGYLE WATSON, M.D.

The Cod Liver Oil prepared by Messrs. Hazard & Caswell, of this city, has been examined by me, and I unhesitatingly pronounce it the best article that has come under my notice. Its purity, and freedom from decayed biliary or animal matter, will recommend it to patient and practitioner, over any of the nauseous oils with which the market is flooded.

SAM'L W. BUTLER, M.D.

MESSRS. HAZARD & CASWELL: DEAR SIR: I have used your Pale Straw-Colored Cod Liver Oil in my practice, and find it to be of unexceptionably good quality. The character of your house, and your conveniences for the manufacture of Oil, will guarantee the genuineness of the article you are furnishing to the profession.

DANIEL WATSON, M.D.

GENTLEMEN: It is with real pleasure that I hand a customer a bottle of your surpassingly beautiful Oil, feeling, as I do, that they cannot find so perfect an article perhaps in the world.

O. B. HUBBELL, *Chemist, 1410 Chestnut St., Phila.*

The testimony of hundreds to the same effect can be presented, but any one acquainted with the sensible properties of the Oil will at once perceive its great superiority over any heretofore offered to the public. Be certain to observe on the label of each bottle the signature of HAZARD & CASWELL, and also upon the metallic capsule covering the cork.

Address,

CASWELL, MACK & Co.,

Successors to HAZARD & CASWELL, CHEMISTS,

FIFTH AVENUE HOTEL, NEW-YORK,

(Intersection of Broadway, Fifth Avenue, Twenty-fourth Street, and Madison Square,)

and No. 132 THAMES STREET, NEWPORT, R. I.

